

الأمراض الحيوانية المصدر والأمراض السارية المشتركة بين الإنسان والحيوانات

الطبعة الثالثة

الجزء الثالث: الأمراض الطفيلية

بيدرو ن. أتشا وبوريس تسيفيرس



صدرت الطبعة العربية عن
منظمة الصحة العالمية
إقليم شرق المتوسط

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الإقليم الأمريكي

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2006

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الإقليم الأمريكي

2003

الأمراض الحيوانية المصدر والأمراض السارية المشتركة بين الإنسان والحيوانات – الطبعة الثالثة

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جميع الحقوق محفوظة.

إن التسميات المستخدمة في هذه المنشورة، وطريقة عرض المواد الواردة فيها، لا تعبر عن رأي الأمانة العامة لمنظمة الصحة العالمية بشأن الوضع القانوني لأي بلد، أو إقليم، أو مدينة، أو منطقة، أو لسلطات أي منها، أو بشأن تحديد حدودها أو تخومها. وتشكل الخطوط المنقوطة على الخرائط خطوطاً حدودية تقريبية قد لا يوجد بعد اتفاق كامل عليها.

كما أن ذكر شركات بعينها أو منتجات جهات صانعة معينة لا يعني أن هذه الشركات والمنتجات معتمدة، أو موصى بها من قِبَل منظمة الصحة العالمية، تفضيلاً لها على سواها مما يماثلها ولم يرد ذكره. وفيما عدا الخطأ والسهو، تميّز أسماء المنتجات المسجلة الملكية بوضع خط تحتها.

يمكن الحصول على منشورات منظمة الصحة العالمية من وحدة التسويق والتوزيع، المكتب الإقليمي لمنظمة الصحة العالمية لشرق المتوسط، ص. ب. (7608)، مدينة نصر، القاهرة 11371، مصر (هاتف رقم: +202 670 2535؛ فاكس رقم: +202 670 2492؛ عنوان البريد الإلكتروني: DSA@emro.who.int). وينبغي توجيه طلبات الحصول على الإذن باستنساخ أو ترجمة منشورات المكتب الإقليمي لمنظمة الصحة العالمية لشرق المتوسط، سواء كان ذلك لبيعها أو لتوزيعها توزيعاً غير تجاري إلى المستشار الإقليمي للإعلام الصحي والطبي، على العنوان المذكور أعلاه (فاكس رقم: +202 276 5400؛ عنوان البريد الإلكتروني: HBI@emro.who.int).

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

تقديم

الدكتور حسين عبد الرزاق الجزائري
المدير الإقليمي لمنظمة الصحة العالمية لشرق المتوسط

شهدت العقود الأخيرة ازدياد أهمية الأمراض الحيوانية المصدر والتي يشترك في المعاناة من ويلاتها الناس والحيوانات معاً، إلى جانب ازدياد وتعقيد وسائل المواصلات، وهو أمر أدى في مقابل ذلك إلى تسريع وتسهيل نشر العوامل الناقلة للأمراض، وإلى تضاؤل دور التباعد في المسافات، فلم يعد بمقدور أي فرد أو مجموعة أن يكون بمأمن عن الإصابة بهذه الأمراض، ورغم قطع خطوات كبيرة على درب التقدم العلمي والتكنولوجي في تشخيص وتصنيف هذه الأمراض، ورغم الإنجازات الكبيرة التي تحققت في مضمار المعالجة والوقاية منها، فإن هذه الأمراض لاتزال تشكل تهديداً خطيراً للصحة في العالم. وقد قام الزملاء في المكتب الإقليمي الأمريكي للصحة العالمية بإعداد هذا السفر حول الأمراض الحيوانية المصدر في ثلاثة أجزاء متكاملة، فلم نتردد في نقل فوائد هذا الجهد إلى بلداننا، بترجمته إلى اللغة العربية، وقد ساعدنا المركز العربي للتعريب والترجمة والتأليف والنشر في تحقيق ذلك، وهو أحد المراكز المتخصصة لجامعة الدول العربية، ويعمل من مقره في دمشق على توفير المواد التعليمية والتدريبية باللغة العربية للمؤسسات الأكاديمية والمهنية وللجامعات العربية، فجاءت الترجمة مثلاً على الاجتهاد في وضع تسميات جديدة باللغة العربية لكائنات لم تكن قد عرفت لها تسميات من قبل، وفي ذلك من التحدي ما يدفعنا للإشادة بالعاملين الصامتين الذين ساهموا في إنجاز هذا العمل، ولا يفوتنا أن نؤكد على أن نجاح هذه الجهود ينبغي أن يترجم في حيز التطبيق بالاستفادة من مضمون هذا الكتاب ووضع موضع التطبيق العملي، وتحديثه ونشر ما حفل به من معلومات على أوسع نطاق، وفي الختام، يرحّب المكتب الإقليمي بتلقي أي ملاحظات لاستكمال خصوصية البلدان العربية ولغتها في هذا الصدد.

والله الحق وهو يهدي على السبيل القويم.

الدكتور حسين عبد الرزاق الجزائري
المدير الإقليمي لمنظمة الصحة العالمية
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القسم الأول
أدواء الأوليات

AFRICAN TRYPANOSOMIASIS

B56.1

B56.0 ICD-10 B56

B56.9

ICD-10 B56 African trypanosomiasis; B56.0 Gambiense trypanosomiasis; B56.1 Rhodesiense trypanosomiasis; B56.9 African trypanosomiasis, unspecified

: trypanosomiasis

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subspecies

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gambiense

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 (*Bull World Heath Organ*, 1982) 10.000
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.(Pentreath *et al.*,1994)

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Greenwood and whittle 1980; WHO)

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.(Vincendeau *et al.*, 1996)

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(Khonde *et al.*, 1995)

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.(Levine, 1985)

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(Molyneux, 1983)

Scott *et al.*,)

.(1983; Schares and Mehitz, 1996

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· (Gouteux and Artzrouni 1996)

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%15

.(Khonde *et al.*, 1995)

Bailey, J.W., D.H. Smith. The quantitative buffy coat for the diagnosis of trypanosomes. *Trop Doct* 24:54–56, 1994.

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Khonde, N., J. Pepin, T. Niyonsenga, F. Milord, P. De Wals. Epidemiological evidence for immunity following *Trypanosoma brucei gambiense* sleeping sickness. *Trans R Soc Trop Med*

Entamoeba

polecki

histolytica

dispar dispar

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(Tsutsumi, 1994)

(Giboda *et al.*,) 1988

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(1985)

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.(García and Bruckner 1997)

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.(Levine, 1985)

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(DeGirolami and Kimber 1983)

.(Chaker *et al.*, 1982) 435 %3.2

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.(Levine, 1985)

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.(Benenson, 1995) ()

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.(Jackson, 1998)

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1988

(Levin and Arustrony, 1970)

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homosexual

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- Amyx, H.L., D.M. Asher, T.E. Nash, C.J. Gibbs, Jr., D.C. Gajdusek. Hepatic amebiasis in spider monkeys. *Am J Trop Med Hyg* 27:888-891, 1978.
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BABESIOSIS

ICD-10 B60.0

.Babesiasis Piroplasmosis :

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(3 . *Divergens*

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 Fritz *et al.* WAI 230
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Mintz *et al.*,)

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Boophilus microplus

.(de la fuente *et al.*, 1998)

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BALANTIDIASIS

ICD-10 A07.0

Balantidiosis :

Balantidium coli :

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(Wenyon, 1926)

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Faust, E.C., P.F. Russell, C.R. Jung. *Craig and Faust's Clinical Parasitology*. Philadelphia: Lea & Febiger; 1970.

García, L.S., D.A. Bruckner. *Diagnostic Medical Parasitology*, 3rd ed. Washington, D.C.: ASM Press; 1997.

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CHAGAS' DISEASE

ICD-10 B57

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Trypanosoma :
cruzi (*Shizotrypanum*)
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CRYPTOSPORIDIOSIS

ICD-10 A07.2

Cryptosporidium :

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- Anderson, B.C. Cryptosporidiosis: A review. *J Am Med Assoc* 180:1455-1457, 1982.
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CUTANEOUS LEISHMANIASIS

ICD-10 B55.1

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.Procavia capensis, Heterolyrax brucei, Dendrohyrax arboreux Hyraxes

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Andersen *et al.*,)

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CYCLOSPORIASIS

<i>Cyclospora cayetanensis</i>	:
<i>Eimeria</i>	coccidium
<i>Isospora</i>	<i>Cryptosporidium</i>
cyanobacteria	1986
.(Sterling and Ortega, 1999)	1977
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.merozoites	

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(1988) .(Khalifa *et al.*, 2001) %3

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(Ortega *et al.*, 1998) phase contract
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calcoflour

.(Negm, 1998)

parasitoses

Blastocystis

8 4 microsporidia

.(Khalifa *et al.*, 2001)

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GIARDIASIS

ICD-10 A07.1

) Lambliasis :

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. *Giardia* :

intestinalis :

muris .

Barriga 1997;) *agilis*

.(Meyer, 1990

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.(Xiao, 1994)	%44 – %7		%0.02 – %17	
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.(Renton *et al.*, 1994

Bielec *et al.*, 1996; Kaucner and Stinear,)

.(1998

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INFECTIONS CAUSED BY FREE-LIVING AMEBAE

B60.2

ICD-10 B60.1

ICD-10 B60.1 Acanthamebiasis, B60.2 Naegleriasis

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) *Naegleria* :
Culbertsoni *Castellanii*) *Acanthamoeba*
 (*Asrtonyxis* *Polyphaga*
 .(*mandrillaris*) *Balamuthina*
 (1993) (*leptomxid*) *Leptomyxida*

(Marínez and Visvesvava, 1997)

Vahlkampfia *Hartmanella*

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Anzil, A.P., C. Rao, M.A. Wrzolek, G.S. Visvesvara, J.H. Sher, P.B. Kozlowski. Amebic meningoencephalitis in a patient with AIDS caused by a newly recognized opportunistic pathogen, *Leptomyxid ameba*. *Arch Pathol Lab Med* 115:21–25, 1991.

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MALARIA IN NONHUMAN PRIMATES

ICD10 B53.1

ICD-10 B53.1 Malaria due to simian plasmodia

.plaudism :

Phylum Apicomplexa

:

.Plasmodium

P.ovale

P.malariae

P. falciparum

.

.P.vivax

Pondeidea

simians

Hylobatidae

(

) (gibbons)

Cercopithecidae

Lemuridae

Lemuraes

Cebidae

.

:

.(Collins and Aikawa, 1977)

.

2

:

elesi

Cyonomoly

Schewtzi

Knowplesi

inui

:

.Simium

.

Aotus

:

()

Saimiri

.

.(Monophyletic)

1998

.

10

b

Reinchenowi

polyphyletic

.

()

12

phylogenetic proximity ()

periodicity

pathogenic

:

Simiovala Field
 . *Coatney*
 1988 :
 . *Reichenowi*
 -
 . -
 . *Anopleles*
 merozoites
 . 5
 .hypnozoites
 Cogswall,
 replication (2) (1992
 sporozoites .
) merogony ()
 .(schizogony
 .vacuole
 .
 . hemozine
 .
 mitosis .
 : .(Shizont) meront
 .
 .

24

72 48 ()

quotidian

.(2)

quartan tertian

macrogametocytes

microgametocytes

Anopheles

.gametogony

gamet

.() microgametes

() macrogmetes

ookinete

zygote

oocyst

sporozoites

. hemocele

.sporogony

(1998)

: (2)

. :
.
.
: .1970 .
%90
()
(de Arruda *et al.*, 1989) %0.05
Darlingi
.
.
passage 170 : .
(Collins and Aikawa, 1977)
.
.
(Collins and Aikawa, 1977)
(1992) .(Flynn, 1973)
.
:
%15 . Cebidae
Ateles *Alouatta* howler
. *Cebus* capuchin

Brachyteles

(*Aloutta Fusca*)

%18 %35

%10

.(*arachnoids*

Cebidae

:

(Deane, 1992)

:

.()

.relapse

.(2)

:

:

gonderi

.*mandrill*

Petersi

georgesi

Cerocebus

(*Macaca mulatto*)

.(Poirriez *et al.*, 1995)

Fragile

Coatneyi

Aikawa *et al.*, 1992; Fujioka *et al.*,)

Saxena *et al.*,)

.(1994

Saimiri (1993)

(Millet *et al.*, 1994)

:
anopheline

Anopheles

balabacensis

neivai

Cruzi

Darlingi

Rodhaini

()

gambine

chemoprophylaxis
repellents

- Aikawa, M., A. Brown, C.D. Smith, *et al.* A primate model for human cerebral malaria: *Plasmodium coatneyi*-infected rhesus monkeys. *Am J Trop Med Hyg* 46:391-397, 1992.
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MICROSPORIDIOSIS

ICD-10 B60.8

ICD-10 B60.8 Other specified protozoal diseases

:

700

Microspora

Enterocyto- :) *Encephalitozoon intestinalis* *zoon bienewi**hellem* (*Septata intestinalis**Pleistophora* *Nosema* *cuniculi**Enterocytozoon* .*Vittaforma* (Scaglia *et al.*, 1994) *Trachipleistophora**Encephalitozoon* .*Pleistophora* *Nosema* .Field *et al.*,) *Vittaforma* *Trachipleistophora*.*Enterocytozoon bienewi* 1985 .(1996

:

Enterocytozoon bienewi.(Rinder *et al.*, 1997)

Apicomplexa

: (Esporozoa)

.(Goodgame, 1996)

microsporidia

)

(merogony)

.

(sporogony

3 1

extrusion

sporoplasm

filament

polaroplast

:

.(CDC, 2003)

:

1994

(Rabedonirina *et al.*, 1996)

400

10

Enterocytozoon bienewisi

%50

%12

.(Vglino *et al.*, 1996)

%44 1996 .
 . %2.3
47 %4.3 50 %36 :
 %66 .
%18 *Enterocytozoon bieneusi* . %5.9
 : .(Sobottka *et al.*, 1998)
 %1.2 (1997)
 .%13.9 .
 60 %7 (1993)
 990 %0.8
 129 %10 (1997) .
12 13 106
 .
 :
 — —
 .
Enterocytozoon bieneusi : .(Deplazed *et al.*, 1996)
 Donkeys (Chalifoux *et al.*, 1998)
 (Bornay-Linares *et al.*, 1998)
Enterocytozoon bieneusi : .
 (Kondova *et al.*, 1998)
 .(Snowden, 1998) *hellem*
Enterocytozoon bieneusi :
 :

(8 – 2)

microvilli

.(Dore *et al.*, 1996; Moss *et al.*, 1997)

Trachipleistophora

Vittaforma

.(Field *et al.*, 1996)

Vittaforma

Enterocytozoon bienersi

(Dowd *et al.*, 1998)

parenteral

scrapings

.(Didier *et al.*, 1995)

.(Croppo *et al.*, 1998)

.(Gainzarian *et al.*, 1998)

.(Croppo *et al.*, 1998)

(1998)

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SAROCYSTOSIS

ICD-10 A07.8

ICD-10 A07.8 Other specified protozoal intestinal diseases

.Sarcosporidiosis :

Sarcocystis :

) :

.*Suihominis* (

Isospora

.(el Naga *et al.*, 1998)

.1968 *Lindemanni*

Apicomplexa

Markus,)

(1978)

striated

(sarcocysts)

compartment

bradyzoites

sexuated

.sporogony

sporocysts

merogony

tachyzoites

merozoites

.(Rommel, 1989)

:

:

:(WHO, 1981) %10 %6

0.06 :
 %10
 %21.8
 30 .%7
 %21 .

.(Wong and Pathmanathan, 1992)

:%90
) *cruzi*
) *Hirsuta* (*bovicanis*
 (*bovifelis*
) *Miescheriana*
Poreifelis (*suicanis*

(1981)

:%47

.(Saleque and Bhatia, 1991) %43 *Miescheriana*

18 – 14

.(Bunyaratvej *et al.*, 1982)

periarteritis

29

.(Barriga, 1997)

500.000 – 50.000

12

specificity

Lindemanni

omnivorous

(1991)

(1979)

()

10 9

10.8 17 13

13.9 11.6

(Frenkiel *et al.*, 1979)

10.8 10

.Stieda

.(Gorman, 1984)

9 – 4

20 – 6

trichinoscopy

tryptic

5

()

.(WHO, 1981)

.(Habeeb *et al.*, 1966)

()

:

Barriga, O.O. *Veterinary Parasitology for Practitioners*, 2nd ed. Edina: Burgess International Group; 1997.

Beaver, P.C., K. Gadgil, P. Morera. *Sarcocystis* in man: A review and report of five cases. *Am J Trop Med Hyg* 28:819-844, 1979.

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Saleque, A., B.B. Bhatia. Prevalence of *Sarcocystis* in domestic pigs in India. *Vet Parasitol* 40:151–153, 1991.

Wong, K.T., R. Pathmanathan. High prevalence of human skeletal muscle sarcocystosis in south-east Asia. *Trans R Soc Trop Med Hyg* 86:631–632, 1992.

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TOXOPLASMOSIS

P37.1

ICD-10 B58

ICD-10 B58 Toxoplasmosis; PE7.1 Congenital toxoplasmosis

Toxoplasma gondii :
Sarcocystis Phylum Apicomplexa
 K Felines
 :
 200
 ()
 merogony ()
 (oocyst) gametogony
 12 10
 5 – 1 :
 11)
 (8 6) (13
 (8 – 6 2) Stieda

.(Dubeg and Beattic, 1988)

:

(2 × 6) tachyzoites

.bradyzoites

()

Trophozoites

cystozoites ()

()

:

:

%50

%40 %16

%80

.(Barriga, 1997)

-

-

()

5

. 50 – 20

(Choi *et al.*, 1997)

(1996) Mullens

.(Mullens, 1996)

1979

110

98 39

.(Benenson *et al.*, 1982)

16

12 (1996)

%61

5

%7

3000

1

40 – 31

: .1.500 1

4.000

35.940 %10.9 (1998) Jenum

23 .

%0.17

%13

%50

%29

%0.4 %17.8 – %6.8

%65.7 : . 10.000 10

.(Rodriguez *et al.*, 1996) %0.056

8.000 120 30

.(Gómez Marín *et al.*, 1997)

1.628 (%24.5) 199 (1998)

%97

–

. %84

%13

%13.1

HIV

%21.1 HIV

.(Chintana *et al.*, 1998)

200

:

(*Oncifelis geoffroyi*, *Felis colocolo*, *Felis eira*)

23

%37

.(Pizzi *et al.*, 1978) %59

%45 – %25 .

. (%25.3) 237 60

%82 . (%23) 55

%60 . 6

.(Ruiz and Frenkel, 1980)

%11 %24.3

.(Dubey 1973)

:

%50 (parasitism)

%13.2 – %3.5

:

:

.(Dubey and Streitl, 1976)

1988

Neosporo caninum

.(Barriga, 1997)

:

distempar

%.50

:

%90

%4

(1996)

3
%6 .(%42.4) (%53.3) (%80.9)
11.5 %87.3

.(WHO, 1979)

%13
%29 %80 (Jenum *et al.*, 1998)
(%30)

:

(%80)

%46

.(Munday, 1975) 1968 – 1962

55 – 45

4

distemipar .(Dubey, 1977)

.() 2

50 %54 :

%0.1 :

%19.5 . %13 1.200

%9.6

%19.3 %31.8

(1997) .(Chintana *et al.*, 1998)

18 – 4 1.276 %12.8

.(%10.2)

.(%16.6)

Toxocora canis

()

%2

%32

21 - 3

144

(%92)

%72

.(Riemann *et al.*, 1975) (%60)

Riemann *et*)

(*al.*, 1975; Chiari *et al.*, 1984

:

:

)

.(

dye

()

.()

.G

M

M

) G
A ()
(Rodríguez *et al.*, 1996) M
M
Kits :
%93 M
(Wilson *et al.*, 1997) %90
M
(Beazley and Egerman, 1998) DNA
E
E (%76) (%98)
(Gross *et al.*, 1997)
G
IV
(flotation)
(oocysts)
21 3

%1 - %40 - 15 - :

()

:

:

.

.

:

.

.

:

°20

°15

()

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.

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.

.

Streptomyces)
 (*cinnamomensis*
 .(Frenkel and smith, 1982)

(:)

17 10 :
 7 4 . 1
 .(Berger *et al.*, 1995)

Frege *et*)

(Dubey *et al.*, 1998) (Washing *et al.*, 1995) (*al.*, 1993

Allain, J.P., C.R. Palmer, G. Pearson. Epidemiological study of latent and recent infection by *Toxoplasma gondii* in pregnant women from a regional population in the U.K. *J Infect Dis* 36:189-196, 1998.

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VISCERAL LEISHMANIASIS

ICD-10 B55.0

() Dum-dum :
Kala-azar

Wilson) *infantum* :
(and Streit, 1986

(Barral *et al.*, 1991) amazonensis

.(Giudice *et al.*, 1996)

Cutaneous

vincersotropic

major

.(Lainson, 1982) ()

.(*donovani sensu lato*)

)

.(

Sensu lato

.(Minodier, 1997)

:

phlebotomine

promastigote

amastigotes

()

.
 %90 :
 : .(WHO, 2003) : 5
 .
 .
 . ()
 .
 . (Baneth, 1998) ()
 .(Gradoni *et al.*, 1996; Harrat *et al.*, 1996; Lagardere *et al.*, 1992)
 . :
 50.000 : 1978 .
 7.500
 1985 1984 .1982
 1988
 .(Dhiman and Sen, 1991)
 600.000 .
 1979 48 1960

.(Guan, 1991) 1990
 1974 1969 :
 5.000 3.000 : . 500
 1994 1984 : .
 280.000 100.000
 : .(Seaman *et al.*, 1996) %57 – 38
 %44.6 1980 1971 3.78 .Bahia
 243 1991 – 1989 .(WHO, 1984)
 %30 .
 .%14
 .(Cunha, 1995) 460 %6
 1985
 .1991 2.511
 : .
 5 ()
 .(Marinkele, 1981)
 :
 : .
 .
 1962 – 1953 :
 285.592 %1.5 35.272 %1.9

1969 1962 10.132 : .(Deane and Deane, 1962)
. %1.7
1.681 .(Sherlock and Almeida, 1970) %25
%23.5 :

.(Paianhos-silva, 1996)
:
. *lycalopex vetulus* %12 %4
100 3 161 4
34 6 48 4
%2.9 : .(Hamidi, 1982)
%23.9 : %1 103
%7 %10 250
.(Gradoni, 1980)
6 - 2 :
. 10
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 0 %67 :
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 . (Zijlstra *et al.*, 1995) %56
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 .
 Ribeiro de)
 . (Jesus *et al.*, 1998

(Altes *et al.*, 1991; López-Vélez *et al.*, 1998) antimoniols
(Berenguer *et al.*, 1998)

7 – 3

Load

(Barriga, 1997)

(Hipólito *et al.*, 1965)

%30

Lycalopex vetulus

Lutzomyia longipalpis

(Paranhos-silva *et al.*, 1976)

.(Dietze *et al.*, 1997)

.(Ashford *et al.*, 1998)

semiarid

()

43 %16.3

49 %77.6

Amostigotes

Lycolopex

vetulus

.(Garnham, 1971)

Lainson *et al* 1969; Silveira *et*) *Cerdocyon thous*

.(*al.*, 1982

:

:

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Bhattacharyo and Ghosh,)

.(1983

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.()

:

.(Manson and Apted, 1982)

anthropoph-

Phlebotomus argentipes

: . ilic

.

: .(Manson and Apted, 1982)

: *Acomys albigena* *Arvicanthis niloticus* :

.*Genetta sangalensis* *Felis philippsi* : *Rattus rattus*

.

.*P. orientalis*

.

()

:

.

Cerdocyon thous

.(Lainson, 1983)

aspiration (%98)

%86 – %54

.(WHO, 1984) %64

.(Osman *et al.*, 1997)

%96 %99

()

() .(Boelaet *et al.*, 1999)

.(Elassad *et al.*, 1994) %93.6 %93.4 IgG

%90.5 %100 () :

%80 0.100 %91.4

: .0.200 %96.6 %94.3

.(Mauricio *et al.*, 1995) reproducibility

2

E E

23 (1998) Atta .

. .

%96.7 %98.5 ()

%98.9 %98.5

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DDT

.()

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. .

. populotron

. :

(Dietze *et al.*, 1997)

Ali and Afrin.) liposomes

promastigote

(1997)

(Dye, 1996)

Ali, N., F. Afrin. Protection of mice against visceral leishmaniasis by immunization with promastigote antigen incorporated in liposomes. *J Parasitol* 83(1):70-75, 1997.

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القسم الثاني

الدُّوَادَات (الأدواء الديدانية)

1. أدواء المَثْقُوبَات

2. أدواء الشُّرَاطِيَّات

3. أدواء مُشَوَّكَات الرَاس

وأدواء المَمَسُودَات

1. Trematodiases

.1

CERCARIAL DERMATITIS

ICD-10 B65.3

(Bather's dermatitis, Swimmer's dermatitis)

:

clam digger

)

cercariae

:

Australobilharzia

:

Gigantobilharzia

Bilharziella

Ornithobilharzia

Microbilharzia

:

)

(*Trichobilharzia*

()

Orientobilharzia

Heterobilharzia

Schistosomatium

Schistosoma

()

.Schistonomatidae

()

preadult stage

miracidium

(snail)

Nassarius

Lymnaea

Bulinus

.

Stagnicola

Planorbis

Physa

()

mollusk

.sporocyst

redia

.cercaria

infectivity

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24

Metacercaria

tegument

tail

.schistosomula

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mate

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28

(%36) 10

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()

.(Visser *et al.*, 1995)

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.clam-diggers

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11 :
58 (Anon, 1992)
(Kullavanijaya and Wongwaisayawan, 1993)

: .
:
(Linadblade, 1998) 317
153 555
(Chamot *et al.*, 1998)

:
sensitization
:
: 30 – 10
: 14 – 5 . 24 – 10

30

(Baskin *et al.*, 1997) .
E

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20 - 10 (Narain *et al.*, 1994)

(Horak *et al.*, 1988) *Zidati*

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hookworm

nematodes

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: *.Stagnicola*

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: *.Ilyanacca*

(Inder *et al.*, 1997)

spindale

Douthitti

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24 – 10

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.(Kolarova *et al.*, 1994)

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.(Lindblade, 1998) ()

Kolarova)

(et al., 1989)

200

:pre-patent

22.5

:(Muller et al., 1993)

copper oleate

Anonymous. Cercarial dermatitis outbreak at a state park—Delaware, 1991. *MMWR Morb Mortal Wkly Rep* 41:225–228, 1992.

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CLONORCHIASIS

ICD-10 B66.1

:

Clonorchis sinensis

Clonorchis sinensis

:

5 – 3

20 – 12

Opisthorchis

1907

operculate

Parafossarulus

Melanoides

Bulimus

Alocinma

Semisulcospira ()

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%32 : .

3 .(Kim, 1995)

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%16.7 %36.4 %5.8 :

%17.2 %18.2 %48.1 %3.8 %12.2

(Chen *et al.*, 1997)

1915

1997 .(Kim, 1990)

%11.3

7 25 %27.6

.(Joo *et al.*, 1996) %30 %2.8

1987

1 27.781 76 %80.3

%13.3 %12.7 : .(Hong *et al.*, 1994)

%100 – 53.4

.(Kino *et al.*, 1998)

%45.5 %20.6

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(Chen *et al.*, 1989) .

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.(Park *et al.*, 1995)

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(. Rim, 1982)

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(. Manson and Apted, 1982)

1.000

35 – 28)

(19 – 12

Heterophyes heterophyes)

Opinthorchis viverrini

Metagonimus yokogawai

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.(Ditrich *et al.*, 1992)

: .(Lim, 1990)

-

%52

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(Hong *et al.*, 1998)

%49

intra-dermal

%26.2

3.180

%21.6

598

.(Kim *et al.*, 1990)

%88 %92

Liu *et al.*,)

%4

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%0 %5 %14

Lin)

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A

%90 - 87 %100 %100

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 .(Fan, 1998) 7 – 3 °20–
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 .(Duan *et al.*, 1993)
 Hong) 6 ()
 24 %6.3 %12.7 (et al., 1998)

molluscicides

predators

Notocotylus attenuatus

Chen, C.Y., J.W. Shin, S.N. Chen, W.C. Hsieh. A preliminary study of clinical staging in clonorchiasis. *Zhonghua Min Guo Wei Sheng Wu Ji Mian Yi Xue Za Zhi* 22:193–200, 1989.

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DICROCELIASIS

ICD-10 B66.2

(dicroceliosis, dircocoeliasis) :

Dicrocoelium Lancet luke
.dendriticum

Dicrocoelium dendriticum :
D. hospes (*D. lanceolatum*)
 2.5 – 1.5 15 – 5

38)

Zebrina detrita *Cionella lubrica*
Bradybaena similaris *Helicella candidula*
Formica fusca : 12) ant ()
F. gigantis *F. Picea* *F. cinerea*
 .(*F. rufibarbis*
 (30 – 22 x 45 – 38)

4 – 3
 . 2 – 1 (slime)
 400 – 100 .(Schunter, 1992)

76 – 38

.(Schuster, 1991)

12 – 10

pulnonete land

:

.*Camponotus*

Limicolaria

()

.(Frank *et al.*, 1984)

:

()

()

:

%80

%40

%75

%100

%49

232

(Haralabidis *et al.*, 1988)

.(Frank *et al.*, 1984)

%94 %50

1988 .

479 (%0.4) 2 :

(Reinthal *et al.*, 1988)

el-Shiekh Mohamed and) 3 208

: (Mummey 1990)

7 208

34

:

heavy

()

(1991)

.4.000

Camara *et al.*,)

.(Wenker *et al.*, 1998) camelids

.(1996

.(Sánchez-Campos *et al.*, 1999)

.(Schuster and Neumann, 1988) °20

:

:

49 (%19.8) 44

.(Braun *et al.*, 1995) %26 13

1.44

: . %9.4 ± 91.2

1.45 1.3

%11.6 ± 13.0 %24.9 ± 26.7 %7.1 ± 9.0 1.45

5 - 3

.(Rehbein *et al.*, 1999) %1.5 ± 41.2

:

Eurytrema

pancreaticum

Eurytrema pancreaticum .grasshoppers

8

Jithendran *et al.*,) %23.8 %5.0 %%69.8
 .(1996

:

(21 38)

)

pesticides (

()

)

.mass

Braun, U., R. Wolfensberger, H. Hertzberg. Diagnosis of liver flukes in cows—a comparison of the findings in the liver, in the feces, and in the bile. *Schweiz Arch Tierheilkd* 137:438–444, 1995.

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ECHINOSTOMIASIS

ICD-10 B66.8

ICD-10 B66.8 Other specified fluke infections

.Echinostamatidosis :

:

Echinostamatidae

) 0.6 – 0.5 3 – 1 15 – 5
 (spines
 Sucker
 (7 – 55 x 125 – 85)

30
Echinostoma 16
 : (Carney, 1991)

E. hortense (*E. lindoenne*) *E. echinatum*
E. revolutum *E. ilocanum*

Hypoderaeum *E. trivolvis* *E. malayanum*
 681 (1994) *.conoideum*
E. ilocanum 8.1 %8.3
.E. revolutum %0.8

()
)
) () (3) ()
) ()
 .()
 :
 : .

.(Liu and Harinasuta, 1996)

()

mongoone

()

)

%50 %1

(

%14

642 (%0.5) 3

.(Son *et al.*, 1994)

116 (%9.5) 11

:3

()

gyraulus

trivolis

Heliosoma

Radix *Lymnae*
 .(Lee *et al.*, 1991)

()
 .%6.5 %2.8
 - *teivolia*
 13 26 -
 .(Marquardt *et al.*, 2000)

()
 (%96 %24)
 .()
H. conoideum

:
 %9.5 %0.5 %0.4
 75 (Lee *et al.*, 1994; Son *et al.*, 1994)
 .(Huh *et al.*, 1994) 1994
 .(Huffman and Fried, 1990)

.(Chai *et al.*, 1994)
hortense

.(lee *et al.*, 1990)

:

(3)

pila

()

Viviparus

Corbicula

clam

:()

endemicity

)

equinostome

:

(

biliary

*Corbicula lindoenis**Tilapia mossambica*

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FASCIOLIASIS

ICD-10 B66.3

fasciolosis

Hepatic distomiasis

:

Fasciola hepatica

:
F. gigantica

40 – 20

3.000

15 – 10

°37 °0

)

12 – 10

. °10 °10

(miracidium

. °10

60

°26 20

8

.Lymnaeidae

Lymnaea

Barriga,) *Stagnicola Pseudosuccinea Fossaria*

.(1997

.(Bargues and Mas-Coma 1997)

F. bulimoides Stagnicola caperat F. modicella :

F. viatrix

S. montanensi P. columella

L. tomentosa *L. diaphana*
L. viridis *L. truncatula*
 .(Boray, 1982)

- *P. columella* *F. cubensis*
 .(Cong *et al.*, 1991)
 30

() Rediae
 7 - 3 .

pedogenesis

418 320
 .(Barrgia, 1997)

0.2

%70

6

10 %5 °14 °12

0.3

7 - 6

. 14 4

2 - 1

6 - 4

.

90 56

auricularis (Radix) superspecies

.

: *L. a. rufescens*

:

: *L. a. geodrosiana*

: *L. a. rubiginosa*

L. lagotis euphratica

.(Malek, 1980) *L. a. natalenis*

.

-

-

.truncatula

:

. 12 - 9 Prepatent

(12 × 75 - 25)

104 - 90 ×

197 - 156)

.(

90 - 13 ×

150 - 130

:

.()

:
 .(García and Bruckner, 1997)
 :
 44 :
 .(Chen, 1991) 1990
 500 1957 – 1956 .
 . 200 1957
 : .(Malek, 1980) ()
 40 : .1972 40
 .(Curtale *et al.*, 1998)
 1944 100 :
 1959 82 : ()
 .(Mora *et al.*, 1980) 42 :1978
 31
 .(Esteban *et al.*, 1999) %68 %0 %15.4
 %41 %75
 .(Esteban *et al.*, 1997)
 59 67
 .coproantigenic prepatent
 Espino)

5861 .(et al., 1998
 .(Apt et al., 1992) %20.6 %6.1 %13.5
 Reliance
 .(Bechtel et al., 1992)
 :
 .
 :
 . %5 – %30
 %95.8 %18.6
 %32 : .
 5.5
 2.5
 .
 %8
 .%20
 %39 – 20
 .
 njovyi
 .
 %33 %45 %50
 %19 %27 %71
 %12 .%7
 .(Srihakim and Pholpark 1991) %85 %0

:

.

.

.

pericanalicular

.periportal

:

53

30

.(el Zawawy *et al.*, 1995)

Curtale) hemoglobineamia

187 %24 .(*et al.*, 1998

.(Abdel Wahab *et al.*, 1996)

-

-

.

: 47 .(el-Nehwihi *et al.*, 1995)

10

.(Fauguenbaum *et al.*, 1962) 38 9

6 :

(%38) (%100) (3 / 1000 %100)

.(de Gorgolas *et al.*, 1992) (%67) (%38)

.(Arjona *et al.*, 1995)

.(Soulsby, 1982)

tunnel

.()

ASL ALT

novyi

(bottle)

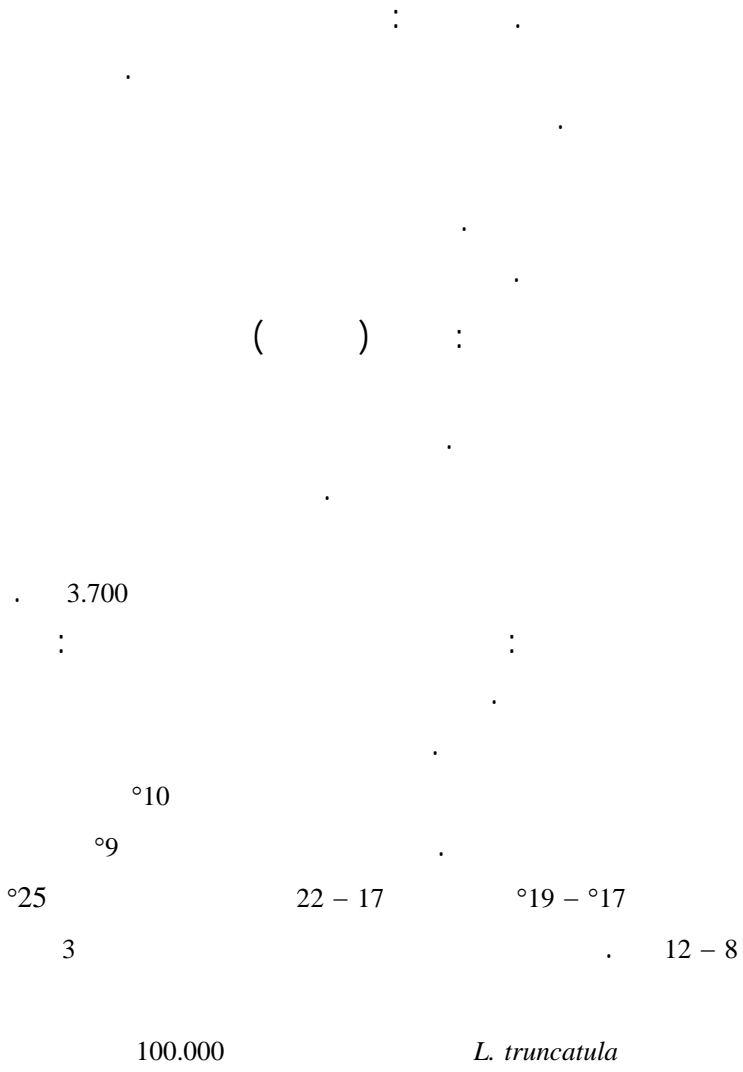
700 – 200

1.400 – 700

1.400

.(Barriga, 1997)

%60



°10 . °10 ()

()

enzootic

3 – 2.5

500.000

Nasturtium officinale ()

10.000)

(

%68 .
 : . %98
 ()
 . ()

prepatent

.immunoelctrotransfer ()
 (-)

-
 -
 Cordova *et al.*,) %100 %98 %95 %89
 .(1999

:()
 . %50 10
 / 120 / 10
 .(Sayad *et al.*, 1997) / 24 / 12
 ()
 .b . () .a :

. .c . ()

.(Yilam and Malone, 1998)

()

:()

.pH

Abdel Wahab, M.F., T.A. Younis, I.A. Fahmy, I.M. el Gindy. Parasitic infections presenting as prolonged fevers. *J Egypt Soc Parasitol* 26:509-516, 1996.

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FASCIOLOPSIASIS

ISD-10 B66.5

Fasciolopsis buski :

(3 20 75)

first °30 18 – 16

.(Soulsby, 1982) () (juvenile) stage

4 – 3 ()

planorbid . °4

Helicorbis *Hippeutis* *Gyraulus* :

Segmentina polypylis

.redia

.aquatic

.

%4

-

-

:

.

3

.(Waikagul, 1991)

:

.

()

10

.

.

.()

%70

-

%1

%.85

geohelminthiasis

%.5

()

(

)

1995

5479

Malek,)

%.08

. 13 - 4

.(1980

.(Manning and Ratanarat, 1970)

Plaut *et al.*,)

(1969

.(Liu and Harinasutaq, 1996)

12 – 3

%40 %35

%13 %10

()

()

Hippeutis

:

()

Polypylis

Segmentine trochoideus

umbilicalis

.(Gilman *et al.*, 1982)

hemisphaerula

.(Ditrich *et al.*, 1992)

Helicorbis umbilicaplis

(*Trapa* *Eliocharis*) :
Zizania, Neptunia, Ipomoea, Eichhornia *Nymphaea*

) (

Gilman *et al.*)

.(1982

() 93 3

140 - 128)

90 - 60

150 - 128)

(85 - 78

.(Zeibig, 1997) (

Taenia

Trichinella spiralis

soluim

:

2 - 1

()

Ditrich O., V. Nasincova, T. Scholz, M. Giboda. Larval stages of medically important flukes (*Trematoda*) from Vientiane province, Laos. Part II. Cercariae. *Ann Parasitol Hum Comp* 67(3):75-81, 1992.

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GASTRODISCOIDIASIS

ICD-10 B66.8

ICD-10 B66.8 Other specified fluke infections

.Amphistomiasis

:

()

:

Gastrodiscoides (Amphistomum) hominis

66 - 4

14 - 5

.(Soulsby, 1982)

17 - 16

embryonating

.(Neva, 1994)

()

°34- °27

:

Helicorbis coenosus

:

152 - 28

)

:

(

%41

233

%27

)
irus) (*Macaca mulatta*
 () 1.201 .(*fascicularis*
 %21.4
 .(Roy *et al.*, 1992)

:(*Strickland*, 1991)

.(Malek, 1980)

antihelminthic

(70 – 60 × 170 – 150)
 .() *Fasciolopsis buski*

.(Roy and Tandon *et al.*, 1992)

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HETEROPHYIASIS

ICD-10 B66.8

ICD-10 B66.8 Other specified fluke infections

. () Heterophyiasis :

Heterophyidae :

1980 .

Heterophyes *Heterophyes heterophyes* :

Stellantchasmus *Metagonimus yokogawai* *nocens*

;
flacatus

Haplorchis *Cryptocotyle (Tocotrema) lingua* ()

Haplorchis vanissima *calderoni*

Haplorchis taichui *Haplorchis yokogawai*

6 :1991 *Stamnosoma armatum*

Centrocestus :
Heterophyopsis *Heterophyses dispar* *armatus*
Pygidiopsis summa *M. takahashii* *continua*
Metagonimus miyatai *.Stictodora fuscatum*

() *.(Satio et al., 1997) M. yokogawai*
.(Yu et al., 1997)

120 3007 5 :
.(Chai et al.,) 1998 .S. Falcatus 46 *nocens*

Pirenella *Melania* *Cleopatra* *Cerithidea*)
(Tympanotomus *Semisulcospira*

armatus

takahashii

P. summa *nocens*

(Chai and Lee., 1991)

S. fuscatum

S. falcatus

0.4 – 0.3

1.7 – 1

) . ()
Cerithidea cingulata : *Pirenella* :
 (*Semisulcospira libertina*
 rediae

(*Mugil*) : .
Tilapia
Acanthogobius goby

0.8 - 0.4 2.5 - 1

Hua ()

Thiara

- - :

:

6.000 mullet

%65 :

nocens

1994 (Malek, 1980) .%1

98 %43 : *nocens*

1992 1984 52.552

.(Lee *et al.*, 1994) %1.2

%6 %12 1991

30

68 465 1993

Park *et al.*,) *miyatai* %21 %3.4

1.067 %7.8 1993 .(1993

5 %12.8 %3.8

318 %81

()

S. falcatus

%15

.(García and Brucjner, 1997)

.(Chi *etal.*, 1988)

globet

:1962

SF

S. falcatus

%99.1

Ethrllichia risticii

()

E. sennetsu

%98.7

Potomac

.(Wen *et al.*, 1996)

Neorickettsia helminthoeca

.(Sonsby, 1982) *Nanophyetus salmincola*

()

critical ()

()

Zeilbig.)

Opisthorchis

Clonorchis

(1997

%35

%10 :

.(Hassan *et al.*, 1989)

:

Ahn, Y.K. [Intestinal flukes of genus *Metagonimus* and their second intermediate hosts in Kangwon-do]. *Korean J Parasitol* 31:331-340, 1993.

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Wen, B., Y. Rikihisa, S. Yamamoto, N. Kawabata, P.A. Fuerst. Characterization of the SF agent, an *Ehrlichia* sp. isolated from the fluke *Stellantchasmus falcatus*, by 16S rRNA base sequence, serological, and morphological analyses. *Int J Syst Bacteriol* 46:149-154, 1996.

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NANOPHYETIASIS

ICD-10 B66.8

ICD-10 B66.8 Other specified fluke infections

() Elokomin :

(*Troglorema*) :

Nunophyetus salmincola

N. salmincola salmincola :

N. salmincola schikhobalowi

()

32 .

(0.5 – 0.3 × 2.5 – 0.8)

Goniobasis .Pleuroceridae

O.silicula Silicula *Oxytrema plicifer, juga* *plicifera*

:

Juga *S. laevigata* *Semisulcospira cancellata*

.(Besprozvannykj, 1994)

(...*Onchorhynchus*, *Salmo*, *Salvelinus*)

.(Soulsby, 1982) (Lampreys, Cyprinidae, Cottidae)

0.11

11 10

0.25

5

8 5 ()

:

.(Fritsche *et al.*, 1989) 1989

Schikhobalowi

%.98

Oxytrema silicula

.()

:

1989

.(Fang *et al.*, 1991)

Harrell and)

:

.(Deardorff , 1992

Schikhobulowi

(%43)

500

.(%16)

(%16)

(%32)

()

:

:

.

:

()

Neorickettsia helminthoeca

7 5

10 7 %90

Elokominia

)
()

(

%10

Schikhobalowi

()
()

.(Millemann and knapp, 1970)

:

- - .

.(Harrell and Deardorff, 1990)

:

$$55 - 35 \times 97 - 87$$

:

:

Besprozvannykh, V.V. [The epizootiological problems of trematodiasis in the Maritime Territory]. *Med Parazitol (Mosk)* 3:28–31, 1994.

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OPISTHORCHIASIS

ICD-10 B66.0

opisthorchis viverrini :

Opisthorchis) *Amphimeras Pseudafelineus* *O. felineus*

(*guayaquilensis*

Clonorchis

Opisthorchis

Felineus

viverrini

)

:

(Clonorchiasis

2.5 – 1.5 × 12 – 7

(Adam et al., 1995)

Bithynia siamensis :

B. laevis *B. (Digoniostoma) Funniculata* *B. s. siamensis* *goniomphalus*

- 280

Hampala Cyclocheilichthys

(*Felis viverrina*) civet

Puntius

20

Felineus

B. tentaculata *infata* (*Bulimus*) *Bithyania leachi*

Leuciscus *Blicca* *Barbus*

Tinca

2

4 *A. pseudofelineus*

(*Canis latrans*) ()

:

.(Khamboonruang *et al.*, 1997) 8

3.5 :

(Bunnag and Harinasuta, 1984) 1981 4.5 1965 *viverrini*

.(Lonharanu and Sornmani, 1991) 1991 7 – 6

1981 . %87 – %72

%35

1988

Jongsuksuntigal and) %56 %5 %18.5

.(Imsomboon, 1997

%90

%36

B. s. goniomphalus %0.5

%0.6 . 7

.(Giboda *et al.*, 1991) %66

128 %37.5

.(Kobayashi *et al.*, 1996)

()

()

%90 %100 %83
%100 : .
.
.
%30 %10 1991 1986
. (Tsybina, 1994) %73 %12 *Codiella* %0.2
A. pseudofelineus
.
) 245 %7.3
 .(%32 %4
 100 3
 80
(Artigas and Pérez, 1962) ()
 . 1988
 :
 . pericholangitis
 .
 .
 . (Riganti *et al.*, 1989)
 : .

.(Sinawat *et al.*, 1991; Holzinger *et al.*, 1999)

:

(Akai *et al.*, 1994)

(Sithithaworn *et al.*, 1991)

:

%0.6

1987

.(Kappus *et al.*, 1991)

216.275

Tinca tinca *Idus melanotus*

: *T. vulgaris*

Puntius *Hampala dispur* *Cyclocheilichthys siaja* :

) %74 () %51 *orphoides*
.(

%85

()

:

)

(1.2814

: .(Harnnoi *et al.*, 1998) (1.4)

.(ELISA)

(%92 %91)

. %80 %70

:

Blastocystis

Ascaris lumbricoides

Paragonimus heterotremus

hominis

Schistosoma spp

Plasmodium spp

Taenia spp

Strongyloides stercoralis

Trichuris trichiura
 .(Sakolvaree *et al.*, 1997) yeasts

Trichinella spiralis
 ancylostomes

.(Sirisinha *et al.*, 1995)

65
 19.4
 %60 :(7 - 6)
 60 - 15

.(Loaharanu and Sornmuni, 1991)

Jongsuksuntigul and)

.(Imsomboon, 1998

1981 %35
 Jongsuksuntigul and) %56 %5
 1991 %18.5
 (Imsomboon, 1997
 %7 %14
 %42 1994 - 1990

°10– :
 %15 %10 %5 5
 (3 10)
 4 () %6
 0.1 kGy
 Loaharanu and (organoleptic)
 . (Sornmani 1991
 1994
 ()

Adam, R., H. Arnold, E. Hinz, V. Storch. Morphology and ultrastructure of the redia and pre-emergent cercaria of *Opisthorchis viverrini* (Trematoda: Digenea) in the intermediate host *Bithynia siamensis goniomphalus* (Prosobranchia: Bithyniidae). *Appl Parasitol* 36:136–154, 1995.

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PARAGONIMIASIS

ICD-10 B66.4

.*Paragonimus*

50

(1999)

.valid

1976		.1
	<i>P. heterotremus</i>	.2
	1970	
1986	<i>P. kellicotti</i>	.3
	canids	
	:) <i>P. mexicanus</i>	.4
	(<i>P. ecuadoriensis</i>	<i>P. peruvianus</i>
marsupials	1983	
	1992	<i>P. miyazakii</i> .5
	1988	<i>P. ohirai</i> .6
	1975	<i>P. skrjabini</i> .7
	<i>P. uterobilateralis</i>	.8
	1973	
	) <i>P. westermani</i>	.9
	(<i>P. philippinensis</i>	

.1880

(García and Bruckner, 1997)

Euparagonimus

: .(Cabaret *et al.*, 1999)

DNA .(Bliar *et al.*, 1999)

:

.(Bliar *et al.*,) 1997

5 – 2

16 – 7

8 – 4

crab

:

crayfish

- -

2.000 1.000

3

Melanopides Brotia

Neotricula

Oncomelania

Tricula

Aroapyrgus

Oncomelania

()

pedogenesis

13 - 9

Cambaroides :

Eriocheir

Ceylonthelphusa

Candidiopotamon

Isolapotamon

Huananpotamon

Geothelphusa

Oziothelphusa

Malayapotamon

Marcobrachium

Potamon

Potamiscus

Parathelphusa

Parapotamon

Sundathelphusa Sinopotamon

Siamthelphusa

Procambarus

Esanthelphusa

:

.Varuna

Siamthelphusa *Potamiscus* *Larnaudia*
Hypolobocera : .
Zilchiopsis *Ptychophallus* *Pseudothelphusa* *Odontothelphusa*
Skrjabini
. *Rana boulengeri*

()

10 – 8

()

Sus scrofa)

(*leucomystax*
.miyazakil

.(WHO, 1979)

1995 . 20

1.5 - 1

503 %6.5

%1.6 :

155 44 .(Malek, 1980)

.(Queuche *et al.*, 1997) (%28)

.(Nawa, 1991)

%5.6 :

20 900

.(Kum and Nchinda, 1982)

100 1970 - 1967

(Nwokolo, 1972)

3 66 69

.(Voelker and Nwokolo, 1973)

.

.()

1976 – 1972 1969 – 1921 511 :

316

: .(Arzube and Voelker, 1978)

%62 %43

20 .(Vieira, 1992)

.

.

.

.

.

.

.

.(Im *et al.*, 1993; Kagawa, 1997)

.

.

.

.

:

-

-

5.000

Skrjabini

Skrjabini

Brenes *et*)

(al., 1983

:

.()

35 – 23

:

(drunken crabs)

.(Malek, 1980)

.()

-

: .()

·
:

· (WHO, 1979)

:

·
:

(*Viverra civetta*) Civet

Sachs and Voelker) 28 26

· (1982

:

·
:

Im *et*) ()

· ()

· (*al.*, 1993; Kagawa, 1997

·
·

47 × 85 :

:

48 × 86 :

abopercular

48 × 79 :

43 × 75 .*Miyazakii*

48 × 92 :

48 × 80 :*Skrjabini*

.abopercular

41 × 68 :

.*Diphyllobothrium*

Pseudophyllidea

cestodes

%24 1961

%0.4

%9 -

- 1991 .

35 32

()

Kong *et al.*,)

.(1998

.(Maleewong, 1997)

:

∴

()

∴

∴

∴

.60
2.5 kGy
2 kGy
30
(Song *et al.*, 1992) 0.1 jGy

Arzube, M.E., J. Voelker. *Über das Vorkommen menschlicher Paragonimiasis in Ecuador (1972–1976)*. *Tropenmed Parasitol* 29:275–277, 1978.

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SCHISTOSOMIASIS

ICD-10 B65

)	Katayama	Bilharziasis	:
			(
:			:
	<i>S. japonicum</i>	<i>Schistosoma mansoni</i>	
	2.5 - 0.5	<i>S. haematobium</i>	
:			.

S. mekongi

S. intercalatum

S. malayensis

S. mattheei

:

.(Kruger and Evans, 1990)

Greer)

.(*et al.*, 1989

.(Jusot *et al.*, 1997; Tchuem Tchuente *et al.*, 1997)

19 .(WHO, 1980)

.(Rollinson *et al.*, 1997)

Schistosoma

digenic

gynecophoral

3.500 – 100

(Miracidium)

8

.(Ye *et al.*, 1997) °36 – 5

10

Biomphalaria :

Oncomelania

Tropicorbis

Planorbarius

physopsis

Bulinus

Tricola

(Muyquarott *et al.*, 2000)

Robertsella

Lithoglyphopsys

7 – 4

20

30.00 *Biomphalaria* :

Bulinus glabosus

180.00

6.000 450

24.000 12.000

.(Marquardt *et al.*, 2000)

digenic

36

(schistosomulum)

3

7

12 - 10 () 8 - 7 () - 5
()
30

74

:

.(WHO, 2003a)

%80

200

WHO,)

20

120

.(2003b

52

)

(

:

%100

.(De Clercq *et al.*, 1999) %28

)

53 -

-

()

:

8

.(Booth *et al.*, 1998)

)

.(

%.21.2 %2.5

.(Jusot *et al.*, 1997; Tchuem Tchente, *et al.*, 1997)

(*globosus* *Forskalli*)

1.396 %49.3

2.391 %40

14 - 10

.(Stich *et al.*, 1999)

.(Greer *et al.*, 1989)

.(WHO, 1979) %40

100

10
 :
 . 600.000 :
 12 - 8 :
 739.995 %22.8
 %100 .(Machado, 1982) 6
 :
 4.8 : 1972 100.000
 . 375.7 1.3 39.2
 1972 - 1969 170 :
 1977 .
 400.000
 .
 :
 ()
 : .(Katz and Carvalho, 1983)
 100
 .
 1999 .
 :

%76 – 53 (1993 %21) %1 %58 – %34
 %1.4 %84 – %30 %2 %88
 2 .(1943 %14)

%11-%7 :
 %25 %64 – %53 %17 %46 %97
 .
 1998
 %43 %0.4
 %8.5 %4.3

:
 :
 (Gerbillus) Gerbils :
 .(WHO, 1979) %50 :

.()
 .(WHO, 1979)
 %90 :

.(El-Garem, 1998)

15 - 10

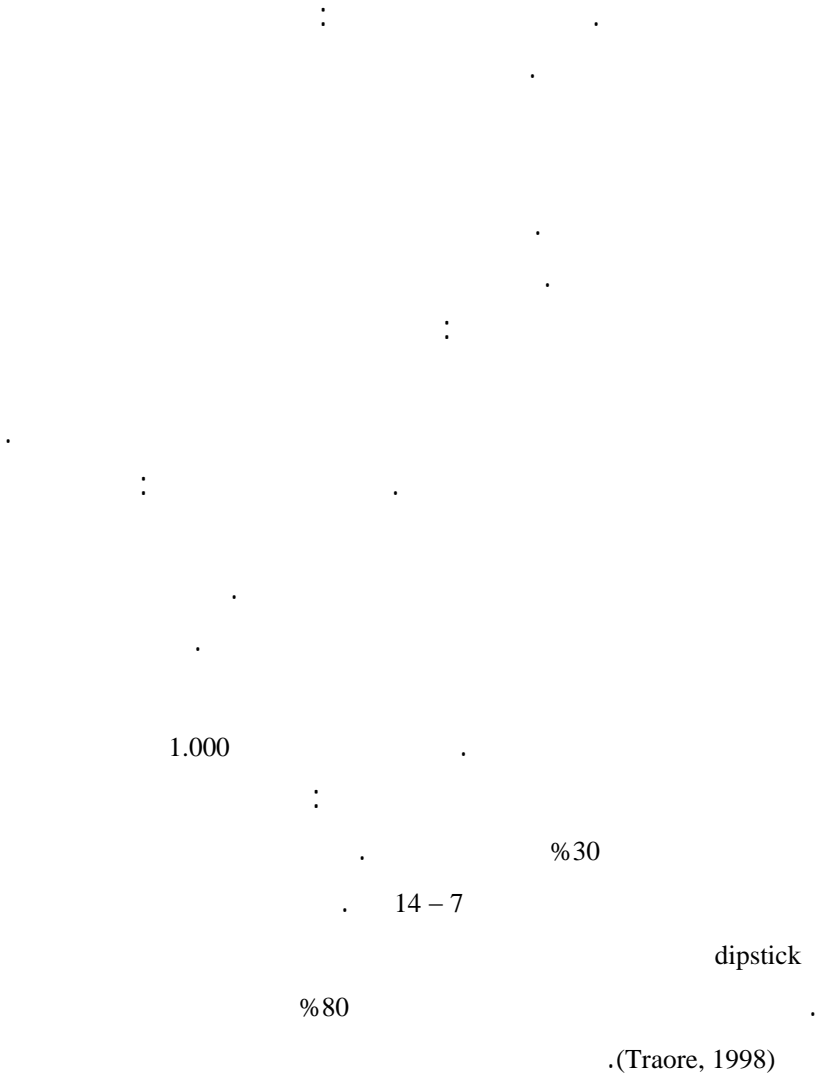
-)
 Andrade,) (- -
 %27 %6 .(1998
 .(Feldmeier, 1998)
 %5
 .(Morris and Knauer 1997)
 .

Ferrari 1999;)

.(Pittella, 1997

- -
 .
 :
 .
 :
 :
 .
 10 36
 : .

.(Kardoff *et al.*, 1997)



%50 . %90 .
 %70 .
S. rodhaini . *S. bovis* .
 .
 .
 . :
 . :
 . :
 %92 () %90 () %62 .()
Spindale . () :
 .
 9 - 7
 ()

:(Soulsby, 1982)

()

()

()

.(Malek, 1975)

()

()

2

15

()

:

.

()

25 - 5

)

(

()

(*Papio*)

31 :

-

- 7

:

Greer *et al.*,)

(1989

)

.(

.(Jusot *et al.*, 1997; Tchuen Tchent *et al.*, 1997)

.()

.(Morand *et al.*, 1999)

:

.()

180 – 110

70 – 40

()

.(Almeda *et al.*, 1996)

.(Borel *et al.*, 1999)

4

eclosion

)

(

: .(Tsang and Wilkins, 1997)

()

()

(Sm22.3)

%90

%80

.(Hancock *et al.*, 1997)

%19

202

%66

.(Boisier *et al.*, 1998)

27

:

14 - 7

(1996)

.()

()

Marsia comuariatetis

M. cornuarietis

.(WHO, 1980)

22-6

Tiara granifera

.(Prentice, 1983)

()

%14 1945 :
() 1982 .1996 %1.4 1942

%80 .()

100

² 15.000

:(Alarcón de Noya *et al.*, 1994)

.(Katz, 1998)

)

(

.(Bergquist, 1998)

Alarcón de Noya, B., C. Balzán, C. Arteaga, I. Cesari, O. Noya. The last fifteen years of schistosomiasis in Venezuela: Features and evolution. *Mem Inst Oswaldo Cruz* 94:139-146, 1999.

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2. Cestodiasis .2

BERTIELLIASIS

ICD-10 B71.9

ICD-10 B71.9 Cestode infection, unspecified

B. mucronata (*B. satyri*) *Bertiella Studeri* :
anoplocephalids

mucronata studeri

1 30 – 10 (Denegri *et al.*, 1998)
()

oribatid 20

.Scutovertex Scheloribates Galumna Achipteria Dometorina
humus 0.5

.cysticercoid
()

mucronata 7 *Studeri* 45 : 56 :1999

.(Ando *et al.*, 1996; Denegri and Perez-Serrano, 1997)

4

Studer .

. ()

:

Studer

mucronata

3

.

.

.

Anthropithecus Simya

studer

.Papio

Pan

Troglodytes

Cercopithecus

Hylobates

Allouata

mucronata

.

.Callithrix

Cebus

Callicebus

%5.3

%1.4

%14

%3.6

.(Flynn, 1973)

%7.7

%7.1

:

.(Owen, 1992)

.

.

:

oribatid

(46 – 40 × 60 – 49) *studer*
 (40 – 36 × 46 – 40) *mucronata*

Ando, K., T. Ito, K. Miura, H. Matsuoka, Y. Chinzei. Infection of an adult in Mie Prefecture, Japan by *Bertiella studeri*. *Southeast Asian J Trop Med Public Health* 27:200–201, 1996.

Denegri, G.M., J. Perez-Serrano. Bertiellosis in man: A review of cases. *Rev Inst Med Trop Sao Paulo* 39:123–127, 1997.

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Turner, J.A. Other cestode infections. In: Hubbert, W.T., W.F. McCulloch, P.R. Schnurrenberger, eds. *Diseases Transmitted from Animals to Man*, 6th ed. Springfield: Thomas; 1975.

COENUROSIS

ICD-10 B71.9

ICD-10 B71.9 Cestode infection, unspecified

.sturdy gid vertigo Coenuriasis :
C. serialis *Coenurus cerebralis* :

Taenia : *C. brauni*
T. brauni *T. serialis* *multiceps*

.coenurus *Multiceps*

Taenia

: .(Barriga, 1997)

1990

1990

Gasser and Chilton,)

.(1995

canids

tapeworms

T. gaigeri

.hare

.(Huss *et al.*, 1994)

T. serialis

brauni

() oncospheres ()

700 – 500

500 – 400

scolices

.(Barriga, 1997)

5
()

8 – 6

canid

.canids

55

1990

1950

.(Pau *et al.*, 1990)

.(Ing *et al.*, 1998)

6

1998

(%100) 37 37
 (%2.7) 183 5
 %96 . 6.5 0.8
 .
 %62 gid
 .
 .%47 %4.5 %2.3
 24 – 6 %72
 7,992 738 : .(Achenef *et al.*, 1999)
 : .(Oryan *et al.*, 1994) (%9.8)
 875 (%0.5) 4
 (%1.7) 15 . (%0.6) 5
 (%0.3) 3 882
 Jones and) (%0.5) 197
 Ballek *et al.*,) 397 %3.3 : .(Walter, 1992
 .(Moro *et al.*, 1998) 20 %20 : (1992
 .
 .(Faust *et al.*, 1974) 10
 .
 . leporids
 : *brauni*
 . ()

Ing *et*)

.(*al.*, 1998

.(*Rakha et al.*, 1997)

62 %42

canids

leporids

.(Pierre *et al.*, 1998)

Dyson and)

.(Linklater, 1979

- Achenef, M., T. Markos, G. Feseha, A. Hibret, S. Tembely. *Coenurus cerebralis* infection in Ethiopian highland sheep: Incidence and observations on pathogenesis and clinical signs. *Trop Anim Health Prod* 31:15-24, 1999.
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CYSTICERCOSIS

ICD-10 B69

cysticercus :

T. crassiceps *Taenia solium*

() *T. saginata*

Cysticercus cellulose

longicollis

C. bovis

canids

()

– unarmed rostellum

T. ovis

T. taeniaeformis

T. hydatigena

()

10 - 8 × 5

: 70 - 60

socket

Cysticercus racemosus

.()

canids

.(corticoids)

.()

.()

%10	%17	(Vilhena <i>et al.</i> , 1999)	222	%14.9
%22		(Garcta-Noval <i>et al.</i> , 1996)		
		(Sánchez <i>et al.</i> , 1998)	363	%16
2,180	%3.2	(Escalante <i>et al.</i> , 1995)	9,254	%9

%2 %4.5 %9 (Lonardoni *et al.*, 1996)
 .(Jafri *et al.*, 1998) 3 438
 89 %43 365 %13
 .(García *et al.*, 1999) ()
 %30 1991
 %2
 %35 4 .
 .(Sánchez *et al.*, 1997) %1.5
 %9 %0.1
 .(Agapejev, 1996) %5.2 %0.7
 17
 %0.43 .
 9 123.826
 100 100 .
 30
 .
 .(WHO, 1979)
 %1 .
 %25
 21.297 1979 – 1946 .
 %2.9
 %3
 Triângulo Mineiro .(Mateos, 1982)
 %2.4 Minas Gerais
 %26.8 %66 2.306

%7.1

%25

.(Gobbi *et al.*, 1980)

:

()

: 1992

(Arocker-Mettiner *et al.*, 1992)

(Klinker *et al.*, 1992)

(Chermette *et al.*, 1995; François *et al.*, 1998)

:

:

%65

12

%0.83

1972 – 1970

10

. (%0.7)
(%23) 75 17 :
(%35) 26
: .(Rodríguez-Canul *et al.*, 1999) ()
Garcia *et al.*,) 89 %43
%30 .(1997
(.Sánchez *et al.*, 1997)

%8.1 %0.1 : .%1.5
:
: .
.1970 %0.004 1962 %0.14
:

%68 1963 .
6
264,000 :1980
43

2.000

%29 %18 :

%10

:

)

(

)

: .(

(

)

(

)

%64

119

(1998)

()

%22

%44

17

54

3

%89

(del Brutto, 1999)

122 . (%26) 19 52

.(Ruíz-García *et al.*, 1997)

(%22.92) :

%6 (%23 %9) (%89 %19)

.(Agapejev, 1996) %48.5

(Rodríguez-Canul *et al.*, 1999)

2,522 (Chimelli *et al.*, 1998) .

(%58) 22 (%1.5) 38

(%55) 21

%46.8

%20

%30

.(Robles *et al.*, 1997) %68

paramyosin

taeniaestatine

.(White *et al.*, 1997)

(1998)

(1992)

3 - 2

:

.(García-García *et al.*, 1999)

.

.

.

%24

%3

%8.6

.(García *et al.*, 1998)

%23.3

%16

%22

Sánchez *et al.*)

:

.(1998

.

()

(%1.4) 993

14 :

%0.02

.(Chamouillet *et al.*, 1997)

:

.

:

.(Rodríguez-Canul *et al.*, 1999)

()

()

.(Gupta *et al.*, 1997)

:

.(Carpio *et al.*, 1998)

46

8

147

35

(%17)

42

6

(%24)

Gruz *et al.*,)

(%23)

124

28

(%14)

.(1999

(1996)

:

()

%85.4

.(Ferreira *et al.*, 1997)

Rodríguez-)

26

8

.(Canul *et al.*, 1999

.(Hubert *et al.*, 1999) %91.5

%96.3

8

(1999)

%.%100

%93

26

:

) . (

.(Cao *et al.*, 1997)

.(Sarti *et al.*, 1997) %1.2 %5.2 .

:

. : .(Borriga, 1997)
:
:

%1 %3.5

.(Allan *et al.*, 1997) 10 %7 %55
(1999)

()

Allan, J.C., M. Velásquez-Tohom, C. Fletes, *et al.* Mass chemotherapy for intestinal *Taenia solium* infection: Effect on prevalence in humans and pigs. *Trans R Soc Trop Med Hyg* 91:595-598, 1997.

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DIPHYLLOBOTHRIASIS**ICD-10 B70.0**

dibothriocephaliasis bothriocephalosis, bothriocephaliasis :
 . tapeworm
 cestode :
 (*Dibo-thriocephalus Bothriocephalus* :) *diphyllobothrium*
.latum : .
 :
 1908 *parvum*
nihonkaiense
 (Ohnishi and Murata, 1993)
 (%0.07) : *Klebanovskii*
yonagoense (Muratov *et al.*, 1992)
 .
dendriticum :
 ursi
 dalliae
 .(Curtis and Bylund, 1991)
 . *pacificum*
 .
 : .() copepod : :
 strobilar .
 scolex .

12 – 3 bothria
) proglottid 4.000 – 3.000 20 – 10
 pore (

)

(°20 – 15 15 – 10
 100 – 50 .coracidium
 ()

. 24

10 – 6 proceroid 20 – 10
)

(sparganum plerocercoid)

1.000

30 – 25
 .(Marquardt *et al.*, 2000) 30

Diaptomus

() *Endiaptomus* ()
 () *Acanthodiaptomus*
 () *Boeckella* () () *Eurytemora*

(Vom Bom sdorff, 1977) () cyclop
)
 burbot (*Lota*) *Acerina* (*Perca* *Stizostedin*) (*Esox*
(Acerina cernua)
(Salmo trutta) (*Salmo gairdneri*) :
Oncorhynchus .

.(Bering sea)

.(Muratove,) 1990 *Salvelinus*

(curtis *et al.*, 1991)

%90 (1993)

%27

(%19)

pinnipeds

()

(*O. flavescens*) *Otaria byronia*

otariidae

(*Arctocephalus australis*)

.(San Juan Fernandes)

(*Paralonchurus perunus*) croakers cocos :

.(Tantalean, 1975) *Trachinotus paitensis* (*Sciaena deliciosa*)

Ursus arctos ursus

Dallia pectoralis

:

%20

.Eurasion

: .1972 – 1969

%1.8

5) 1973

9

.(von Bonsdroff, 1977; WHO, 1979) (

0.1

4

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(

Hutchinson)

1997 37 .(et al., 1997
 (Chung et al., 1997) 21
 1992 1948 52.552
 .(Lee et al., 1994) %0.004

%80 – %30

Buoza Suarez) 1990

: .(et al., 1990
 1976 – 1962 314 136
 .1995 – 1986 13
 13 :

: .(Torres, 1982)
 1.295 %1.2 (1989)

1.450

Salmo)

10.758 . (*Salmo trutta gairdneri*
 11 ()
 .(Kurte et al., 1990)

45 - 40 75 - 55)
(

24 °10-

5 °56

Abo-Shehada, M.N., Y. Ziyadeh. Prevalence of endoparasites in dog faecal deposits in Jordan. *J Helminthol* 65:313-314, 1991.

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		175 – 60		3
)				
)	(<i>Ctenocephalides canis</i>		
	(<i>Pulex irritans</i>)	(<i>C. felis</i>	
		(<i>trichodectes canis</i>)	
		strobila		
		(oncospheres)	
			cysticeroids	
9.134	(1991)			
	%77.5	%98.5	182	198
	%1.6	%2.3		
	20			
			:	
	150		:	
		(17)	:	

Wijesundera and Ranaweera; 1989)

Raitiere, 1992 Reid *et al.*, 1992; Neafie and Marty, 1993; Brandstetter and
 .(Auer, 1994

:

156 %45 .

756 %19.8 (Wachira *et al.*, 1993)

303 %13.2 (Abo-Shehada and Ziyadeh, 1991)

Jones) 315 %9.2 (Cabrera *et al.*, 1996)

(Epe *et al.*, 1993) 3.329 %1.1 (and Walters, 1992

(Deplazes *et al.*, 1995) 371

%3.8 %0.2

Umeche and) 52 %23 .

(Baker *et al.*, 1989) 1.502 %23 (Ima, 1988

%1.4 (Calvete *et al.*, 1998) %20.7

.(Epe *et al.*, 1993) 1.147

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:

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.

(Belmar, 1963)

%25

:

1.1 (1997) :

13

()

()

20 - 5

.oviferous

Abo-Shehada, M.N., Y. Ziyadeh, Prevalence of endoparasites in dog faecal deposits in Jordan. *J Helminthol* 65:313-314, 1991.

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HYDATIDOSIS

ICD-10 B67 Echinococcosis

ICD-10 B67

hydatid disease

:

.() ()

canid

61 - 47

.polytypic

: :

(*Rangifer Alces*)

:(Schantz, 1982)

) ()

() (wallaby

Thompson and)

.(Kumaratilke, 1982

() :

camelid () procine ()
 Rinder) .(Rozenzvit *et al.*, 1999) ()
 .(*et al.*, 1997

alveolaris

3.7 – 1.2 .*sibiricensis*

23 27

(*lagopus Alopex*) :

.(*vulpes vulpes*)

.*Lemmus*

Microtus

Clethrionomys

60 .

()

. 33

3 – 2

26

33

.jaguarundis ()

agouti *Dasyprocta*

42 " " 5.6 – 3.9
Speothos) canid 33
 : (venaticus
 .paca *Cuniculus paca*

() :

) () (

() tundras

.(Eckert, 1996)

. ()

(Salinas-López *et al.*, 1996)

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Serra Canales *et al.*,)

(1999

:

()

100.000

:

(Arámbulo, 1997)

20

7.8 – 7.9

2.0

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407 %9.1 (Andez)

104 %32 117 %87 (Western blot)

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 .(Moro *et al.*, 1997) . 1980

100.000 48 – 18 38

%15 %40

Gutierrez *et*) 300.000 .
 .(*al.*, 1992

. 100.000 11.4 6.5 1994 – 1985
 .(Serra Canales *et al.*, 1999)

(100.000 26.7) 16 :1994
 .(Larrieu *et al.*, 1996) %2.3 %1.3

9.515 (%1.6) 156 :
 .(Carmona *et al.*, 1998)

115.819 : .

(100.000 310) 359 :1970 1947
 53.014 (100.000 204) 108
 40 – 25
 :

(%89) 28 25 1995
 19

:

()

26,065 :

1980 1990 1951

%71 - %7 %90 - %3.3 %4.5 - %0.5
 .(Chai, 1995)

: .(Watson-Jones *et al.*, 1997) 334 %5.2

20.220 399

(%69) 233 (%1.7)
 .(Shambesh *et al.* 1999)

100.000 2.3 100.000 1.2

1980 1970 91

(%1)

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Romig *et al.*,) Eurasia 1990

%50 - %1 : .(1999

1.4 0.02 (%1>)

100.000

Eckert.)

%90

606

1990

.(1996

%8.8

%65

%10

.(%5)

1.312

7

584

(Graig *et al.*, 1992)

.(Jiang, 1998) %5 – %2.4

%19.2 – %2.8

1998

86

3

32

:

51 (

)

.(Basset *et al.*, 1998)

.(D'Alessandro, 1997)

–

:

%30

%95 – %20

(%0.29)

:

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%6

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425 96

()

(

.(Rausch *et al.*, 1981)

()

:

190.000

79 (%64) 568 336 1984 1947
 . (%68) 116

(%70 %65)
 .(%25)
 :
 : cervids

(%75)

— — ()

: 677 .

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30

53

72

%80

(1997)

vogeli

%25

%10

(1992)

vogeli

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() (6) :

.() () ()

%60

6

%40

(Barriga and Al-khalidi, 1986)

8.5 5.000

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%60 :

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6.3

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6)

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2.000

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%90

%50 :

: . %10

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.(Lawson and Gemmell, 1983)

Lawson and Gemmell,) °21 - 10 32 °6 225 °30
80 : 10 .(1983

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150.000

1.500 .(Macpherson, 1983)

.1980 1965

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(French and Nelson, 1982) 100.000 18

(Yarzabal and Capron, 1971) 111

154 %60 .

:

(*Canis lupus*)

Dusicyon

:

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Vulpes Alopex

arvicoline microtine

arvicoline

943 %2.4

(Arvicola terrestris scheman)

23 2

%4.6 %0

Vulpes) 70 %8.5 :

(%8.6)

10

(vulpes

.(Pétavy and Deblock, 1983)

:

.(Suwan, 1995)

electrosynthesis

ELISA

.arc 5

ELISA

respective

arc 5

(1995)

%96.6

%86

%79 arc 5

:

:

. %97

%93

(Helbig *et al.*, 1993) %99

%89

(%96.5)

29

28

(1995)

176 26

1996

(%35.2)

Coltorti and)

.(Cammarieri, 1993

Poretti *et*)

%97 – %94

%82

.(*al.*, 1999

.(Kern *et al.*, 1995)

(arecoline hydrobromide

)

%65

.(Barriga and Al-khalidi, 1986)

.(Gasser *et al.*, 1994) %61

()

%95

%94 %100

%93 %80 %99

.(Deplazes and Eckert, 1996)

.1 :

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1971

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.1985

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1993 – 1996

1966 – 1965

12.6

—

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.1982 – 1981

%0.09

.1982

%4

1982 – 1981 %0.7

1967 – 1966

(1973,)

:

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.
.(1990)

: .
.(Economides *et al.*, 1998)

6.5 :1962 – 1950
1985 1971 1.000
1983 .100.000 2
1995
: (Todorov and Boeva, 1999)
.(Moro *et al.*, 1997)

:()

.()
: .

%4.2 %41.5 1992 1979
10 %13 %61
.(Larrieu *et al.*, 1994) 100.000 4.5 100.000 64

1995 1992

()

.(Chai, 1995)

.(Lightowers *et al.*,1996)

Arámbulo, P., III. Public health importance of cystic echinococcosis in Latin America. *Acta Trop* 67:113–124, 1997.

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HYMENOLEPLIASIS

ICD-10 B71.0

Hymenolepis nana

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H. diminuta

fraterna

200 1 4 - 2.5
 () scolex
 180 - 80
) ()

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cysticeroid

.cysticeroid

30

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%0.24 :

Mason) 351 %18 315
 Rodríguez and) 110 %21 (and Patterson, 1994
 %8.8 (Khalil *et al.*, 1991) 1.800 %16 (Calderón, 1991
 Guimarães *et al.*,) 147
 (Cancrini *et al.*, 1988) 381 %8.7 (1995
 100 %2 (Kaminsky, 1991) 266 %8
 146 %2 (Makhlouf *et al.*, 1994)
 Agi,) 280 %0.4 (Kabani *et al.*, 1995)
 (Navarrete and Torres, 1994) 219 %0.4 (1995
 216.275 %0.4
 Soul 52.552 0.03% (Kappus *et al.*, 1991)
 3 %0.008 (Lee *et al.*, 1994)
 .(Suárez Hernández *et al.*, 1998) 1995 1981

7.8 :

%14.5 128

(*Rattus norvegicus*) 43 14 .

200 .

6 .

1999 1989

1.050 %3

70.000

900 %4

:

%62

%84

200

.(Khalil *et al.*, 1991)

325

:

250 .(Romero-Cabello *et al.*, 1991)

Suárez Hernández)

.(*et al.*, 1998

%30

%5

() prepatent

4 - 2

:

(Kaminsky, 1991)

:

.(Mason and Patterson, 1994)

.()

)
(*Tenebrio* and *Tnibolium*)

.()

:

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45 38

60

89

(Montenegro *et al.*, 1994)

()

1991

%83

%79

90

(%35)

(%28)

()

.(Allan *et al.*, 1990)

:

:

1989

%80 – %75 praziquantel

()

Esterobius vermicularis

(Ito. 1997)

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INERMICAPSIFERIASIS

ICD-10 B17.9

ICD-10 B17.9 Cestode infection, unspecified

Inermicapsifer

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cubensis :) *madagascariensis*
 . 350 2.3 42 – 27 (*arvicanthidis*
 scolex () *Raillietina* . ()

53 – 49 175 – 150 . (

(1963)

(*Arvicanthis*)

2 – 1 (1949 100)

.(Conzález Núñez *et al.*, 1996)

1989

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Faust, E.C., P.F. Russell, R.C. Jung. *Craig and Faust's Clinical Parasitology*, 8th ed. Philadelphia: Lea & Febiger; 1970.

González Núñez, I., M. Díaz Jidy, F. Núñez Fernández. Infección por *Inermicapsifer madagascariensis* (Davaine, 1870); Baer, 1956. Presentación de 2 casos. *Rev Cubana Med Trop* 48:224-226, 1996.

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MESOCESTOIDIASIS

ICD-10 B71.9

ICD-10 B71.9 Cestode infection, unspecified

<i>Mesocestiodes lineatus</i>	:	:
		<i>.M. variabilis</i>
	2	40

tetrathyrid-

<i>tetrathyridium</i>	.	<i>ium</i>
acetabula		

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bothria

tetrathyridium

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.tetrathyridium

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20

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1

Schultze *et al.*,)

(Eom *et al.*, 1992)

.(1992

(Fitzsimmons, 1967)

120

%34

342

%73

1999

1997

201

%23

68

%24

1.300

%54

%58

%0

:

8

%37 :

254

:

58

%14

(Crosbie *et al.*, 1998)

tetrathyridia

:

:

(Eom *et al.*, 1992)

.(Crosbie *et al.*, 1998)

11

tetrathyridium

:

.tetrathyridium

tetrat-

hyridium

:

tetrathyridium

Crosbie, P.R., W.M. Boyce, E.G. Platzer, S.A. Nadler, C. Kerner. Diagnostic procedures and treatment of eleven dogs with peritoneal infections caused by *Mesocostoides* spp. *J Am Vet Med Assoc* 213:1578-1583, 1998.

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RAILLIETINIASIS

ICD-10 B71.9

ICD-10 B71.9 Cestode infection, unspecified

	<i>demerariensis</i>	<i>celebensis</i>	:
<i>garrisoni</i>	<i>Formosana</i>	<i>Asiatica</i>	—
	<i>siriragi</i>	<i>madagascariensis</i>	
.	<i>celebensis</i>	.	.
	500	2.5	40
	400 – 300		
	<i>demerariensis</i>	.	4
1985)		howling	
	320	23	(Guyana
12	1925		
250 – 75		.	500
.	12		9 – 7

225

celebensis

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%9 (*Rattus norvegicus*)

%54 :

%7

%5

(*Rattus rattus*)

() (*Bandicota bengansis*)

.1997

%37

demerariensis

quitensis

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Luisaleoni

Leoni

equatoriensis

1933

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400 - 300	<i>celebensis</i>		
46	99	4 - 1	
	250 - 75	<i>demerariensis</i>	
	40 - 25		12 - 7
	.	:	
	.	()	
	.	:	
<i>Sigmodom</i>)		:	
			(<i>hipidus</i>)
	.	:	

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SPARGANOSIS

ICD-10 B70.1

spirome- diphyllbothriasis :
 .plerocercoid trosis
) :
Spirometra (sparganum
 : (*Lueheela*, *Diphyllbothrium*)
mansonoides *masoni*
.proliferum *erinaceieuropaei*
 (Rego and Schaffen, 1992)

.(Lee *et al.*, 1997)

proliferum

.1992

.(Nokamura *et al.*, 1990)

Cyclop () copepod :
 () *coracidium*
 .proceroid
 .(plerocercoid)

()

30 - 10

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25

10 - 4

Guyana

Belize

(Griffin *et al.*, 1996)

62

1996

500

30

.(Bi *et al.*, 1983)

.(Tsou and Huang, 1993)

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(Nakamura *et al.*, 1990)

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Chang *et al.*,1992)

.(Kim *et al.*, 1996

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.(Phares, 1996)

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.(Chang and Han, 1998)

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Bi, W.T., et al. [A report of 22 cases of *Sparganosis mansoni* in Hunan Province]. *Chin J Pediatr* 21:355, 1983.

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Griffin, M.P., K.J. Tompkins, M.T. Ryan. Cutaneous sparganosis. *Am J Dermatopathol*

) .Cysticercus

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Bovidae

bovines

.Cervidae

.(Fan *et al.*, 1990a; Fan *et al.*, 1990b)

1000 – 800

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. 50.000 – 30.000

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72 – 24

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15 – 8

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72 – 62

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Cysticercus racemosus

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100

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75 - 60

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.(Fan *et al.*, 1990a; Fan *et al.*, 1990b)

39 1947 :

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Strickland,) 3 45 :1973
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Sutisna *et*) :

56 %98 (*al.*,1999

.(Allan *et al.*, 1996)

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(Kappus *et al.*, 1991) %0.1 :1987

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900 (1991) .

%12.4 .%1.5

300 %10.4 (Giboda *et al.*, 1991) 1.008

Birrie *et al.*,) 19 %8.1 (Karrar and Rahim, 1995)

.(Supanaranond *et al.*, 1990) 171 %2.9 (1994
(%10)

%65

()

%1.7 %0.1 %1.6 %2 – 1 %0.6 :

.(Fan, 1997)

%6

%11

%21

.(Depary and Kossman, 1991)

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Demirize *et*)

.(al., 1995

.(Pawlowski, 1983)

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1.661

(1992)

%78

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(

%95)

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%42

%42

%45

%46

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Fan)

30 – 26

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9

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(Gupta *et al.*, 1997)

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Rodríguez-Canul *et al.*,)

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(Evans *et al.*, 1997)

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Allan, J.C., M. Velásquez-Tohom, R. Torres-Álvarez, P. Yurrita, J. García-Noval. Field trial of the coproantigen-based diagnosis of *Taenia solium* taeniasis by enzyme-linked immunosorbent assay. *Am J Trop Med Hyg* 54(4):352–356, 1996.

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Acanthocephaloses and Nematodiasis

ACANTHOCEPHALIASIS

ICD-10 B83.8

ICD-10 B83.8 Other specified helminthiasis

	.Macracanthorhynchosis	:	
thoren-		:	
	:) <i>M. hirudinaceus</i>		:headed
	<i>G. gigas</i>		<i>Gigantorhynchus hirudinaceus</i>
	<i>Moniliformis moniliformis</i>		(<i>Echinorhynchus gigas</i>
<i>A. bufonis</i>			<i>Acanthocephalus rauschi</i>
	<i>Corynosoma strumosum</i>		(<i>A. sinensis</i>)
			<i>.Bolbosoma</i>
	:		
	.		
	.		
5 – 3	10		10 – 4
			35
			.
			proboscis
	()		110 – 70
			.

Scrabaeidae

(dung)

peccary)

(

muskrat

squirrel

3 - 2

250.000

*Corynosoma**Enhydra**(Alopex lagopus)**strumosum*

.pinnipeds

*(lutris**(pontoporeia affinis)**Bolbosoma*

:

%32 - %17

:

.%23 (Soulsby, 1982)

%5 - %0.9

%60 - 50

%7.4 - %3

.(Leng *et al.*, 1983)

volga

Leng *et*). *Melolontha*Faust *et al.*) 1958

5

(al., 1983

(1989)

.(1974

200

3

1970

115

.(Leng *et al.*, 1983)

()

autochthonous ()

.(Neafie and Marty, 1993) 15 1989

(Ikeh *et al.*, 1992) :

Mafiana *et al.*,) (*Rattus rattus*) %39

.(1997

A. bufonis

Corynosoma strumosum

(Schmidt, 1971)

(1990)

:

.(Leng *et al.*, 1983)

(1992)

:

.caseous

12

.(De Gisuti, 1971)

scarabaeids

Carambycidae

.(Leng *et al.*, 1983) (cystacanth)

deliberate

piperazine citrate

(acanthor)

(rooting)

De Giusti, D.L. Acanthocephala. In: Davis, J.W., R.C. Anderson. *Parasitic Diseases of Wild Mammals*. Ames: Iowa State University Press; 1971.

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ANGIOSTRONGYLIASIS

B83.2

ICD-10 B81.3

()

ICD-10 B81.3 Intestinal angiostrongyliasis

B83.2 angiostrongyliasis (*Parastrongylus Cantonensis*)

Angiostrongylosis :

()

.()

:metastrongylid nematodes

:

Morerast-) *Angiostrongylus costaricensis*
cantonensis () (*rongylus*
.Parastrongylus *.malaysiensis*
 1944
 1952 1971
 . 1990
 " "

35 – 14 Filiform
 () 0.3
 . 12 .(*Sigmodon hidpidus*)
Saguinus (*Nasua arica*) () :
 . (*mystax*

(*Vaginulus plebeius*) Veronicellidae Slug
 .
Phyllocaulis :
Belocaulus angustipes, *Bradybaena Similaris*, *variegatus*
 .(Rambo et al., 1997) *Phyllocaulis Soleiformis*

(Mojon, 1994)

() slime

Mollusk

·
:
" "

degenerate

0.3 25 – 17

.Bandidota

gastropods

.Bradybaena

Vaginulus Laevicaulus Achatina

Oncomelania

(Paratenic hosts) (transfer)

()

·
·

.
 .
 18 – 17
)
 (paratenic
 .
 .1990 *Rattus norvegicus*
 Sawabe and Makiya)
 %23 (1995
 .(Ambu *et al.*, 1997) ()
Biomphalaria :
glabrata
 :
 .
 130 1952
 300 (1991) .1971
 1992 .
 (1993) .(Juminer *et al.*, 1993)
 1995 – 1994
 (Kramer *et al.*, 1998) 22
 (1997) – .
 %30
 . %66

%6

%15

.(Juminer *et al.*, 1993)

Sigmodon hispidus

)

Oryzomys caliginosus

(*Vaginulus*

27

1992

5

:

.(Aguiar *et al.*, 1981)

()

Pascual *et*)

(*al.*, 1981

1992

()

:1950

:

.()

autochthonous

primate

.(García and Bruckner, 1997)

(*exulans*)

. %40 :
20 12 55 %32.7

.(Aguiar *et al.*, 1981)

(Sawabe and Makiya, 1995)

.(Ambu *et al.*, 1997)

:

(³ 50.000 20.000)

.(%82 %11)

116

1975 1966

resction

)

90

.(

(%53)

34

.(Loría-Cortés *et al.*, 1980)

13 – 6

.(Morera *et al.*, 1982)

13

82

16.5
%5 %30
(%91.5)
%11 %19.5 VI VII
%12 %25
(Hwang and Chen, 1991)
125 1969 – 1968
()
%78
%50
Pleocytosis
(1998)
.II III IV VII
:
()
)

paratenic

.(

.(Kliks *et al.*, 1982)

16

(*Achatina fulica*)

. 10

6 - 1

()

12

.(Kliks *et al.*, 1982)

10

)

(

()

:

(Tesh *et al.*, 1973)

(*S. hispidus*)

()

(slime)

Kramer,)

.(1998

Rattus

Melomys littoralis *Bandicota indica*

()

:

.()

:

(1991)

%86

()

Ascaris

%83

.(Graeff-Teixeira *et al.*, 1997) .*suum*

:

Gnathostoma spinigerum

(1990)

(1991)

84 %41.5

.(Legrand and Angibaud 1998) presumptive

Eamsobhana *et al.*,) %60-%50

%100

.(1997

:

prophylaxin

:

Zanini and Graeff-

.(Teixeira 1995

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ANISAKIASIS

ICD-0 B81.0

(Anisakiosis, anisakidosis) :

.cod worm herring worm

: :

(porrocaecum, *Terranova*, *Phocanema* :) *Pseudoterranova Anisakis*

Ascaridida (Contracaecum
 marine" : Anisakidae
 : ."ascarids

Pseudoterranova decipiens A. *simplex*

pseudoterranova

Anisakidae *decipiens*
 .I A

Pseudoterranova

piscivorous ()

Contracaecum .

(paratenic) transfer

Mehlhorn and Walldorf,)

.(1988

pseudoterranova decipiens

1955

1969 . 160 :1968
 . mandatory 24
 487
 . .1976
 . 50 – 20 :
 1992/6 1989/6 107 :
pseudoterranova
 1995 80 : .*decipiens*
 : 244 .
 47 (Uga *et al.*, 1996) %11
 1.008
 14 . 2 – 1.5
 .(García-Palacios *et al.*, 1996)
 3 (1999)
 1997 23 .
 3 (5 11) 16
pseudoterranova decipiens .
 .
 . 4
 .
 %95 .
 : . 14 .
 :
 %1.5 jacks (*Trachurus murphyi*) 222 %48.6
 180 %1.6 croakes (*Sciaena deliciosa*) 381

"cojinobas" 250 %0 (*Polyclemus peruanus*) "cocos"
.3 12 (*Seriollela Violacea*)
311 %27 :

Anisakidae : .
(*Cilus montti*) corvina (*Merluccius gayi*) hake
Torres *et al.*,) Sierra (*Thyrsites atun*)
cod *pseudoterranova decipiens* .(1978
.

Ishikura *et al.*,) :
.(1993
pseudoterranova .
. *decipiens*
pseudoterranova .
.

56 .
.(Kagci *et al.*, 1992)
.

histocytes
.

(Mendizabal-Bassagoiti, 1999)
.(Moreno-Ancillo *et al.*, 1997)

.(Kakizoe *et al.*, 1995)

24 - 12

:

7

Smith and)

.(Wootten, 1978

phlegmons

:

.(Matsuoka *et al.*, 1994)

92

: %30 ()

%65

pseudoterranova

: 20

.(Kliks, 1983)

·
:

: ·

cephalopods

()

·

·

:

Deardorff *et al.*,)

%70 %50

·(1991

·

·

·(Matsumoto *et al.*, 1992)

6 4

sonography

·(Ido *et al.*, 1998)

-

·(Petithory *et al.*, 1991)

·

:

°70

.()

72 °20

. °20

1989

Deardorff, T.L., S.G. Kayes, T. Fukumura. Human anisakiasis transmitted by marine food products. *Hawaii Med J* 50(1):9-16, 1991.

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ASCARIASIS

ICD-10 B77

.(Ascaridiasis Ascaridiosis) :

Ascaris :

A. suum : *lumbricoides*

.(Barriga, 1982)

()

6 - 3

35 - 20

20 - 15

12

(Murrell *et al.*, 1997)

:() ()

prepatent

60 - 50

75 - 60

:

:()

1

644

42

20.000

.(Walsh and Warren, 1979) .

. %70 %20

5 - 2

17

7

25

:(WHO, 1967)

:

ascarid

()

.(Barriga, 1997)

.(Mazumder *et al.*, 1992)

reactivity

Inatomi *et al.*,)

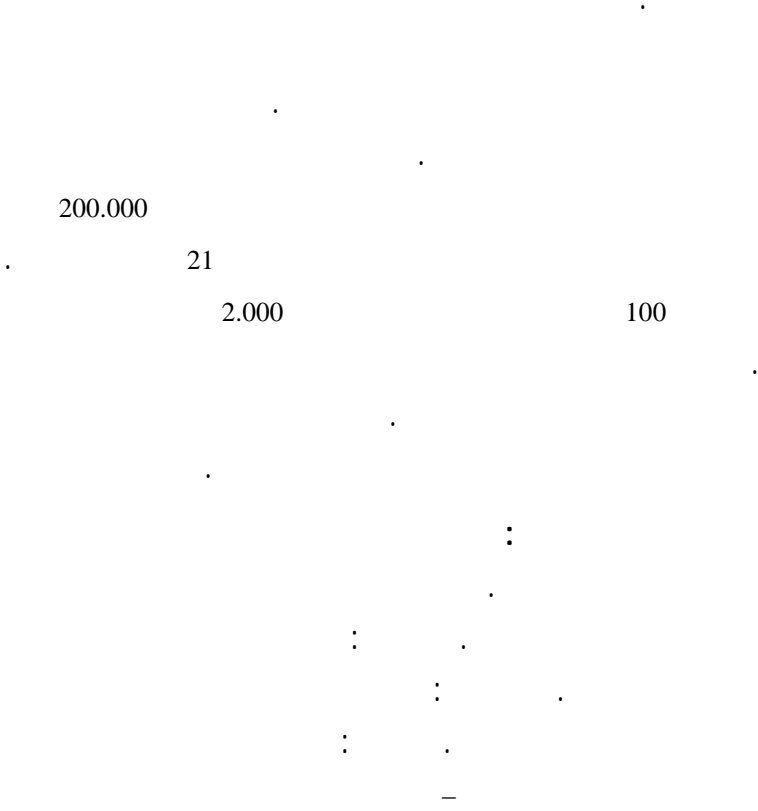
.(Petithory *et al.*, 1994)

.(1999

%.01

1995 – 1994

14



.(Crewe and Smith, 1971)

9

.(Davies and Goldomid, 1978)

.(Kofie and Dipeolu, 1983)

denticles

Anisakis simplex

Toxocara

superfamilies

excretory

.nematodes (Kennedy *et al.*, 1988)

massive

()

.()

5

%12 (1993)

.() 2.5

°30

°22

°40

Verticillium

Lysek and Sterba,)

chlamydosporium

.(1991

Ayres, R.M., D.L. Lee, D.D. Mara, S.A. Silva. The accumulation, distribution and viability of human parasitic nematode eggs in the sludge of a primary facultative waste stabilization pond. *Trans R Soc Trop Med Hyg* 87(3):256–258, 1993.

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Kennedy, M.W., J. Tierney, P. Ye, *et al*. The secreted and somatic antigens of the third stage larva of *Anisakis simplex*, and antigenic relationship with *Ascaris suum*, *Ascaris lumbricoides*, and *Toxocara canis*. *Mol Biochem Parasitol* 31(1):35–46, 1988.

Kofie, B.A., O.O. Dipeolu. A study of human and porcine ascariasis in a rural area of south-west Nigeria. *Int J Zoonoses* 10(1):66–70, 1983.

Lysek, H., J. Sterba. Colonization of *Ascaris lumbricoides* eggs by the fungus *Verticillium chlamydosporium* Goddard. *Folia Parasitol* 38(3):255-259, 1991.

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BAYLISASCARIASIS

Baylisascaris

:

ascarid

procyonis

ascarids

sables

bears

badgers

skunks

.transfuga

12

23

4 - 3

lagomrphs 19

paratenic 13

()

76 – 50

38 – 32

:

%94 %92

1.425 %72

33 %70 310 %82

.(Kerr *et al.*, 1997)

1989 .(Huff *et al.*, 1984) 1984

2000 1989

Goldberg *et*) neuroretinitis

13 (*al.*, 1993

Boschetti *et*) 10 (Cunningham *et al.*, 1994)

.(*al.*, 1995

:

1.900 300

:

4 - 2

ataxia

torticollis

stupor

7

tunnel

62 - 48

14 - 12

(Rudmann *et al.*, 1996)

(Anderson 1999)

(Ball *et al.*, 1998)

gibbon

immunoec-

(Gunningham *et al.*, 1994) to transfer

1994

T. canis

58 – 52

70 – 62

77 – 73 90 – 85

2.5

.nests

Anderson, B.C. Congenital *Baylisascaris* sp. larval migrans in a newborn lamb. *J Parasitol* 85(1):128–129, 1999.

Ball, R.L., M. Dryden, S. Wilson, J. Veitch. Cerebrospinal nematodiasis in a white-handed gibbon (*Hylobates lar*) due to *Baylisascaris* sp. *J Zoo Wildl Med* 29(2):221–224, 1998.

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CAPILLARIASIS

B83.8

ICD-10 B81.1

ICD-10 B81.1 Intestinal capillariasis; B83.8 Other specified intestinal helminthiases

.Capillariosis :

: :

C. hepatica

Capillaria philippinensis

C. aerophila

5 – 2.5

. 4 – 1.5

barrel

Trichuris

14 – 10 embryonate

. 3

()

.(Neva and Brown, 1994)

piscivorous ()

.(Cross and Basaca-Seville, 1991)

8 - 5

enclose

2 - 1

3 - 2

- - . 7 - 5
 10 - 7
 .() 40
 :
 . 1963
 : .%6 1.500
 4.000 %3
 .(Banzón, 1982) 1967
 .(Peng *et al.*, 1993) 17
 1 3 : 41 2000 - 1989
 20 3 1 1 1 2
 Dronda *et*) . 9
 .(al., 1993
 82 %44 .%85 %0.7
 .(Namue and Wongsawd, 1997) 76 %8 (Davoust *et al.*, 1997)
 . -
 11 1985
 1) 14 (2 9)
 .(3 1 5
 1 3 1 1 :2000 - 1989 10
 30 1997 . 1 3
 .(Davoust *et al.*, 1997)

1977

%38

%.1

%5

7

1

1 :

9

.(Aftandelians *et al.*, 1977)

:

45 – 20

intercurrent

.(Cross, 1992)

.(Attah *et al.*, 1983)

()

.(Slais, 1973)

.(Aftandeliants *et al.*, 1977)

)

:

(

:gerbils

.(Banzón, 1982)

massive

.(McClallum, 1993)

.(Brander *et al.*, 1990)

:

()

()

.(Banzón, 1982)

()

cannibalism

:

30

()

dirt

:

dirt

Aftandeliants, R., F. Raafat, M. Taffazoli, P.C. Beaver. Pulmonary capillariasis in a child in Iran. *Am J Trop Med Hyg* 26(1):64-71, 1977.

Attah, E.B., S. Nagarajan, E.N. Obineche, S.C. Gera. Hepatic capillariasis. *Am J Clin Pathol* 79(1):127-130, 1983.

Banzón, T. Human intestinal capillariasis (*Capillaria philippinensis*). In: Schultz, M.O., section ed. Section B, Vol. 2: *CRC Handbook Series in Zoonoses*. Boca Raton: CRC Press; 1982.

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CUTANEOUS IARVA MIGRANS

:ICD-10 B76.9

ICD-10 B76.9 Hookworm disease, unspecified

serpiginous	creeping	:	
	) larva currens		eruption
			(<i>Strongyloides</i>
		:	
	<i>Ancylostoma</i>		
			anylostomid
<i>Bunostomum</i>			<i>Uncinaria stenocephala</i>

. *phlebotomum*

) : .
(cenent

.(Hotez *et al.*, 1992)

Díaz-Camacho)

Pelodera

(*et al.*, 1998

)

strongyloides

.(Jones *et al.*, 1991)

(

Gasterophylus

arthropods

.(Cypess, 1982) *Hypoderma*

:

Necator

1

)

. 0.37

.(

:

.(Barriga, 1997)

.
:
.
98 (Caumes *et al.*, 1995) 269
(Jelinek *et al.*, 1994)

(1996) :
80 %96 %49
%68 (1988)

:

%)73)

%)7)

(
(

: . . 8 - 2

Richey *et al.*,) 55 – 18

(Jelinek *et al.*, 1994)

E

:

.(1996

()

ivermectin

interdigital

5

mutilation

.(Barriga, 1997)

:

serpiginous

269

pyoderma (%25)

(%10) arthropod-reactive (%18)

.(Caumes *et al.*, 1995) (%5) (%6) tungiansis (%9)

. %25

:

(Barriga, 1997)

5 – 4

Barriga, O.O. *Veterinary Parasitology for Practitioners*, 2nd ed. Edina: Burgess International Group; 1997.

Caumes, E., J. Carriere, G. Guernonprez, F. Bricaire, M. Danis, M. Gentilini. Dermatoses associated with travel to tropical countries: A prospective study of the diagnosis and management of 269 patients presenting to a tropical disease unit. *Clin Infect Dis* 20(3):542-548, 1995.

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DIOCTOPHYMOSIS

ICD-10 B 83.8

ICD-10 B83.8 Other specified helminthiasis

.Dioctophymiasis :

Dioctophyma renale :

12 - 5

1

:

:

102 15

:

Lumbriculus variegatus

120 – 70

Esox lucius Ictalurus nebulosus

R. Clamitans Rana pipiens

Idus

:

R. septentrionalis

6 – 5

:

.(Barriga, 1982)

-

:

:

%1.5 otter ()

%2

%48 %18

%37

.weasel

%1

Jackals

%35

%60

204 :1969

13

1982

.(Barriga, 1982)

.(Galiérrez *et al.*, 1989)

:

:

:

)

()

(

:

- Barriga, O.O. Diactophymiasis. In: Schultz, M.O., section ed. Section C, Vol. 2: *CRC Handbook Series in Zoonoses*. Boca Raton: CRC Press; 1982.
- Fyvie, A. *Diactophyma renale*. In: Davis, J.W., R.C. Anderson, eds. *Parasitic Diseases of Wild Mammals*. Ames: Iowa State University Press; 1971.
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DRACUNCULIASIS

ICD-10 B72

Dracunculosis) guinea-worm :
(dracontiasis

Dracunculus medinensis :
120 – 50
0.4 29 – 12 2 – 1
()

insignis

() nutria Skunk
) muskrat ()
insignis

3 - 1
 15 .Cyclops () copepod
 ()
 6 - 3 coelomic

() . 4 - 3 .

14 - 10 .

)
 . 500.000 ()

18 - 12

:

.(Muller, 1979) °19 °30 °25
 :
 .
 .
 43 1947 .
 .1978 26.980 : . 10 1976
 1977 .
 WHO,) %4
 - - .(1982
 (CDC, 1992) 1989 %57 1990 1991 %33
 100 1992 3
 17
 :2000 (Hopkins and Ruiz-Tiben, 1992)
 75.223
 .(WHO, 2003a)
 .
 .(Petit *et al.*, 1989) %50 %80 1989 :
 (%82) 982 1.200
 %50 .(Okoye *et al.*, 1995)
 40 - 20 () .
 .(Johnson and Joshi, 1982)
 Antilles :

()

.()

.(CDC, 1998)

1995

WHO,) *insignis*

.(1979

4

.(Hoyos *et al.*, 1995)

prepatent

:

:

larviposition

Bloch *et*)

.(*al.*, 1999

:

fainting

:

:

.(Bloch and Simonsen, 1998)

:

()

100

.(Kale, 1977)

206

(%82) 982

1.200

(%44) 431

(%20) 193

(%21)

.(Okoye *et al.*, 1995)

(%16) 152

:

purulet

.(Beyer *et al.*, 1999)

:

Eberhard and)

. (Brandt, 1995

.2 .

.1 :

.(Muller, 1979)

- ³ 75

:

- 75

%11.7

213

.(Kaul *et al.*, 1992)

15 – 12

200

.(Imtiaz *et al.*, 1990)

Beyer, T.A., R.D. Pinckney, A.J. Cooley. Massive *Dracunculus insignis* infection in a dog. *J Am Vet Med Assoc* 214:366–368, 1999.

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Okoye, S.N., C.O. Onwuliri, J.C. Anosike. A survey of predilection sites and degree of disability associated with guineaworm (*Dracunculus medinensis*). *Int J Parasitol* 25:1127–1129, 1995.

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World Health Organization (WHO). Dracunculiasis Eradication [web page]. Available at www.who.int/ctd/dracun/index.html. Accessed 11 March 2003. 2003b.

ESOPHAGOSTOMIASIS AND TERNIDENSIASIS

ICD B81.8

ICD-10 B81.8 Other specified intestinal helminthiasis

() Helminthoma :

.nodular worm

:

O. stephanostomum

Oesophagostomum bifurcum

Ternidens

(*O. apiostomum*)

)

O. aculeatum

deminutus

(1980)

.1989

13 - 8

7 - 5

cuticle

cuticular

.nodular worms

3 - 1

.(Barriga, 1997)

40 - 30

0.6

16 - 12

:

.

.

:

. () .apes
(Ross *et al.*, 1989) 1989 70

%4

.(Karim and Yang., 1992) 1992

:

%59

5 - 3 .

.(Krepel *et al.*, 1992) 10

%70 %53

.(Flynn, 1973)

%76 . ()

.(Flynn, 1973)

:

.(Goldsmid, 1982)

55.54 coprologic .%87

%3.75)

.() %5.75

28 (1988) :

.(Ross *et al.*, 1989)

.(Krepel *et al.*, 1995)

.()

()

.(Goldsmid, 1982)

:

()

(1982)

33.7

.(Krepel and polderman, 1992)

G4

%95

rDNA

:

(Polderman *et al.*, 1993)

.(Rosmtad *et al.*, 1997)

K

:

Barriga, O.O. *Veterinary Parasitology for Practitioners*. 2nd ed. Edina: Burgess International Group; 1997.

Flynn, R.J. *Parasites of Laboratory Animals*. Ames: Iowa State University Press; 1973.

Goldsmid, J.M. *Ternidens* infection. In: Steele, J.H., section ed. Section C, Vol. 2: *CRC Handbook Series in Zoonoses*. Boca Raton: CRC Press; 1982.

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GNATHOSTOMIASIS

ICD-10 B83.1

Gnathostomosis :

.wandering swelling

Gnathostoma spinigerum :

G. doloresi

G. hispidum

G. nipponicum

1890 .

.1924 (Boar)

() 1989

(Nawa *et al.*, 1989)

) head bulb () hooks
 : .(AKahane *et al.*, 1998) (

39.7 36.7 34.5

cuticle .

8 () ()

5 - 2.5 .

3 - 1

Cyclops

copepod

10

Hemocele

4

4

200

1

.paratenic

:

)

.(

.()

6

36

.(Ando *et al.*, 1992)

:

.

.

.()

:

serpent

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:

2 - 1

-

-

-

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:

-

.

(*Mustela sibirica itatsi*)

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:

.

:

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:

.

.

Ando et)

90 - 69

.(al., 1992

:

Rusnak and Lucey,)

:

98

.(1993

()

.1998

300 1970 :

Díaz Camacho *et*) 1995 1992

1997 1993 98 (*al.*, 1998)

(Rojas-Molinn *et al.*, 1999)

.(Ollague *et al.*, 1988)

. ()

()

. %4 %35

. (*Ophiocephalus argus*) %100 %60

%90 eel %80 %37

. .

. 1991 3.478

38 . %15

. %23

. 1 23 : 25 1997 1989

.(Nawa *et al.*, 1997) 1

: :

. .

. () :

.(Rusnak and Lucey, 1993)

:

.()

:

16

.()

300

%75

93

12

35

.(Díaz Camacho *et al.*, 1998)

:

(*Oncorhynchus masou masou*)

18

3

blisters

.(Akahane *et al.*, 1998) 30

25

(1990)

Angiostrongylus cantonensis

filariae

.(Biswas *et al.*, 1994)

12

:1994

:

:

-

.(

)

-

serosanguineous

Barriga,)

.(1997

:

: .
O. tadianus, Ophiocephallus argus :

- : .
(*Clarias batrachus*) - *Ophiocephallus*
(Daengsvang, 1982)

: :

()

Fasciola

(Anantaphruti, 1989)

11

(Tuntipopipat *et al.*, 1989) 9

: enzootic

:(1997)

5

°4

- Akahane, H., M. Sano, M. Kobayashi. Three cases of human gnathostomiasis caused by *Gnathostoma hispidum*, with particular reference to the identification of parasitic larvae. *Southeast Asian J Trop Med Public Health* 29(3):611-614, 1998.
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GONGYLONEMIASIS

ICD-10 B83.8

ICD-10 B83.8 Other specified helminthiases

.Gongylonematosis :

Gongylonema pulchrum :

Thelaziidea spiruroid

Bear

:(Cappucci *et al.*, 1982)

(*Sciurus niger*) Squirrel

.(Coyner *et al.*, 1996)

Rumen

. 0.3 – 0.15 62

. 0.5 – 0.2 145

.

.

Aphodius, Blaps, Ontophagus :

. *Blatella germanica* .

. ()

.coprophagia

coleopteran

.()

46 :

1994 1982 1864

.(Eberhard *et al.*, 1994) 2000

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%5.9 —

%10 %21 %0 1.518

. 20 %5 29

%95 %39 %94 %32

. %37 %0

. %49.7

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Aphodius

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%90 %60

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.193 1

Geotrupes Aphodius

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Cappucci, D.T., J.K. Augsburg, P.C. Klinck. Gongylonemiasis. In: Steele, J.H., section ed. Section C, Vol. 2: *CRC Handbook Series in Zoonoses*. Boca Raton: CRC Press; 1982.

Coyner, D.F., J.B. Wooding, D.J. Forrester. A comparison of parasitic helminths and arthropods from two subspecies of fox squirrels (*Sciurus niger*) in Florida. *J Wildl Dis* 3(3):492-497, 1996.

Eberhard, M.L., C. Busillo. Human *Gongylonema* infection in a resident of New York City. *Am J Trop Med Hyg* 61(1):51-52, 1999.

Jelinek, T., T. Loscher. Human infection with *Gongylonema pulchrum*: A case report. *Trop Med Parasitol* 45(4):329-330, 1994.

LAGOCHILASCARIASIS

ICD-10 B83.9

ICD-10 B83.9 Helminthiasis, unspecified

Lagochilascaris minor

:

0.8 – 0.2

20 – 6

.() agouti

.(Moraes *et al.*, 1983)

.(Campos *et al.*, 1992) 20 9

:

5 1 7) 1982 19 .
(Volcan *et al.*, 1982; Moraes *et al.*) (1 5
1 5 1) (2000 – 1982 7 .(1983
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. 5 × 3

. 6

3 .(Vargas-Ocampo and Alvarado-Alemán, 1997)

Veloso *et al.*,)

.(1992

.(Bento *et al.*, 1993)

:

:

.(Amato and Pimentel-Neto, 1990)

.(Volcan *et al.*, 1991) (*Speothos venaticus*)

:

.

Lagochilascaris

(Volcan *et al.*, 1982)

Amato, J.F., L. Grisi, M. Pimentel-Neto. Two cases of fistulated abscesses caused by *Lagochilascaris major* in the domestic cat. *Mem Inst Oswaldo Cruz* 85(4):471-473, 1990.

Bento, R.F., C. do C. Mazza, E.F. Motti, Y.T. Chan, J.R. Guimaraes, A. Miniti. Human lagochilascariasis treated successfully with ivermectin: A case report. *Rev Inst Med Trop Sao Paulo* 35(4):373-375, 1993.

Campos, D.M., L.G. Freire Filha, M.A. Vieira, J.M. Paco, M.A. Maia. Experimental life cycle of *Lagochilascaris minor* Leiper, 1909. *Rev Inst Med Trop Sao Paulo* 34(4):277-287, 1992.

Moraes, M.A., M.V. Arnaud, P.E. de Lima. Novos casos de infecção humana por *Lagochilascaris minor* Leiper, 1909, encontrados no estado do Para, Brasil. *Rev Inst Med Trop Sao Paulo* 25(3):139-146, 1983.

Vargas-Ocampo, F., F.J. Alvarado-Alemán. Infestation from *Lagochilascaris minor* in Mexico. *Int J Dermatol* 36(6):56-58, 1997.

Veloso, M.G., M.C. Faria, J.D. de Freitas, M.A. Moraes, D.F. Gorini, J.L. de Mendonca. Lagoquílascariase humana. Sobre tres casos encontrados no Distrito Federal, Brasil. *Rev Inst Med Trop Sao Paulo* 34:587-591, 1992.

Volcan, G.S., C.E. Medrano. Infección natural de *Speothos venaticus* (Carnivora: Canidae) por estadios adultos de *Lagochilascaris* sp. *Rev Inst Med Trop Sao Paulo* 33(6):451-458, 1991.

MAMMOMONOGAMIASIS

ICD-10 B83.3

ICD-10 B83.3 Syngamiasis

.syngamosis :

() :

M. nasicola

Mammomonogamus (syngamus) laryngeus

.Syngamidae

bubaline ()

. 0.3 × 3

0.5 × 10

.Y

:

.*S. trachea*

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.()

:

60 (%45) 27

(Santos and Fukuda, 1977)

Freire and Biachin)	48	(%37.5)	18
70	%2.8	:	.(1979
	.(1980)
.(Van Aken <i>et al.</i> , 1996)		597	%23
:(Cunnac <i>et al.</i> , 1988)	79	.	
:1995	.(Mornex <i>et al.</i> , 1980)		51
.(Nosanchuk <i>et al.</i> , 1995) (	5)	100	
	.2000 1988	9	
Pipitgool <i>et al.</i> ,)	–	3	
	.(Kim <i>et al.</i> , 1998)		(1992
	:	:	
Birrel,)	.	.	
	10		(1977
:1977	.		
.	.		
	.(Gardiner and Schantz, 1983)		
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- Cunha, M., J.F. Magnaval, D. Cayarci, P. Leophonte. À propos de 3 cas de syngamose humaine en Guadeloupe. *Rev Pneumol Clin* 44:140-142, 1988.
- Freire, N.M.S., I. Biachin. Prevalência de *Mammomonogamus laryngeus* (Railliet, 1899) em bovinos no Rio de Janeiro. *Arq Esc Vet UEMG (Minas Gerais)* 31:23-24, 1979.
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- Van Aken, D., J.T. Lagapa, A.P. Dargantes, J. Verduyze. *Mammomonogamus laryngeus* (Railliet, 1899) infections in cattle in Mindanao, Philippines. *Vet Parasitol* 64(4):329, 1996.

MICRONEMIASIS

ICD-10 B83.8

ICD-10 B83.8 Other specified helminthiases

	<i>Micronema delectrix</i>	:
	445 – 445	.
1954	<i>Halicephalobus gingivalis</i>	
	(1998)	
	(1998)	–
		:
		.(Shaddock <i>et al.</i> , 1979)
		–
		parthenogenic
		.(Gardiner <i>et al.</i> , 1981)
	mare	
Greiner <i>et al.</i> ,)	<i>Cephalobus</i>	
		.(1991)
		:
Shaddock)	(Hoogstraten <i>et al.</i> , 1975)	:

.2000 1988

.(*et al.*, 1979; Gardiner *et al.*, 1981

2000 – 1988

12 1985

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28

.(Ferris *et al.*, 1972)

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87.500

.(Alstad *et al.*, 1979)

kicking

decubites

:

encephalomalacia

.(Shadduck *et al.*, 1979)

:

Alstad, A.D., I.E. Berg, C. Samuel. Disseminated *Micronema deletrix* infection in the horse. *J Am Vet Med Assoc* 174(3):264-266, 1979.

Anderson, R.C., K.E. Linder, A.S. Peregrine. *Haliccephalobus gingivalis* (Stefanski, 1954) from a fatal infection in a horse in Ontario, Canada with comments on the validity of *H. deletrix* and a review of the genus. *Parasite* 5(3):255-261, 1998.

Ferris, D.H., N.D. Levine, P.D. Beamer. *Micronema deletrix* in equine brain. *Am J Vet Res* 33(1):33-38, 1972.

Gardiner, C.H., D.S. Koh, T.A. Cardella. *Micronema* in man: Third fatal infection. *Am J Trop Med Hyg* 30(3):586-589, 1981.

Greiner, E.C., M.B. Mays, G.C. Smart, Jr., S.E. Weisbrode. Verminous mastitis in a mare caused by a free-living nematode. *J Parasitol* 77(2):320-322, 1991.

Hoogstraten, J., W.G. Young. Meningo-encephalomyelitis due to the saprophagous nematode, *Micronema deletrix*. *Canad J Neurol Sci* 2(2):121-126, 1975.

Shaddock, J.A., J. Ubelaker, V.Q. Telford. *Micronema deletrix* meningoencephalitis in an adult man. *Am J Clin Pathol* 72(4):640-643, 1979.

Teifke, J.P., E. Schmidt, C.M. Traenckner, C. Bauer. *Haliccephalobus* (Syn. *Micronema*) *deletrix* als Ursache einer granulomatösen Gingivitis und Osteomyelitis bei einem Pferd. *Tierärztl Praxis Ausg G Grosstiere Nutztiere* 26(3):157-161, 1998.

STRONGYLOIDIASIS

ICD-10 B78

.Strongyloidosis :

Strongyloides :

.*S. fuelleborni* *stercoralis*

(*S. ransomi*)

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Grove and Northern,)

35

%30 :

.(1982

:(Grove and Northern, 1982)

fuelleborni

.(WHO, 1979)

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34

1947

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8.6

21 :

()

%1.5 %2

%4.8

%6.3

646

fuelleborni

%75

%50

: (Flynn, 1973)

:

fuelleborni

%9.9 (1977)

:

fuelleborni

180 %48

76 %34

:

.(Brown and Girardean, 1977)

154 %31 *fuelleborni*

:

%2 %7

:

%1

:

hypobiotic

.(Liu and Weller, 1993)

.(Chabasse *et al.*, 1995)

- *Procyonis*

.(Emad, 1999)

65 :

%75 %90 :

%45 %60

Woodring *et al.*,) %30 %5

.(1996

- .(Coutinho *et al.*, 1996)

-

∴ .
%50 .

- .

(Celedón *et al.*, 1994)

∴ .
.(Ramos *et al.*, 1984)

(Wong *et al.*, 1998)

(Foucan *et al.*, 1997)

∴ .

.(Palau and Pankey, 1997)

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.(Hira and Patel, 1977)

fuelleborni

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(Georgi and Sprinkle, 1974)

fuelleborni

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(20 76 %34)

: (Hira and Patel 1980; Brown and Girardrau, 1977)

Procyonis

:

fuelleborni

:

: *fuelleborni*

472 (1993)

:

: 70 42 9

. 15

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: ()

.(Lindo *et al.*, 1994) %100 %97 – 94

%100 %13

Abdul-Fattah *et al.*, ()

%94 – %92 .(1995

.(Costa-Curz *et al.*, 1997) %97– %94

:

Abdul-Fattah, M.M., M.E. Nasr, S.M. Yousef, M.I. Ibraheem, S.E. Abdul-Wahhab, H.M. Soliman. Efficacy of ELISA in diagnosis of strongyloidiasis among the immune-compromised patients. *J Egypt Soc Parasitol* 25:491-498, 1995.

Barriga, O.O. *Veterinary Parasitology for Practitioners*, 2nd ed. Edina: Burgess International Group; 1997.

Brown, R.C., M.H. Girardeau. Transmammary passage of *Strongyloides* sp. larvae in the human host. *Am J Trop Med Hyg* 26:215-219, 1977.

Celedón, J.C., U. Mathur-Wagh, J. Fox, R. García, P.M. Wiest. Systemic strongyloidiasis in patients infected with the human immunodeficiency virus. A report of 3 cases and review of the literature. *Medicine (Baltimore)* 73:256-263, 1994.

Chabasse, D., C. Le Clec'h, L. de Gentile, J.L. Verret. Le larbich. *Sante* 5:341-345, 1995.

Costa-Cruz, J.M., C.B. Bullamah, M.R. Gonçalves-Pires, D.M. Campos, M.A. Vieira. Cryo-microtome sections of coproculture larvae of *Strongyloides stercoralis* and *Strongyloides ratti* as antigen sources for the immunodiagnosis of human strongyloidiasis. *Rev Inst Med Trop Sao Paulo* 39:313-317, 1997.

Coutinho, H.B., T.I. Robalinho, V.B. Coutinho, et al. Immunocytochemistry of mucosal changes in patients infected with the intestinal nematode *Strongyloides stercoralis*. *J Clin Pathol* 49:717-720, 1996.

de Kaminsky, R.G. Evaluation of three methods for laboratory diagnosis of *Strongyloides stercoralis* infection. *J Parasitol* 79:277-280, 1993.

Emad, A. Exudative eosinophilic pleural effusion due to *Strongyloides stercoralis* in a diabetic man. *South Med J* 92:58-60, 1999.

Flynn, R.J. *Parasites of Laboratory Animals*. Ames: Iowa State University Press; 1973.

Foucan, L., I. Genevier, I. Lamaury, M. Strobel. Meningite purulente aseptique chez deux patients co-infectés par HTLV-1 et *Strongyloides stercoralis*. *Med Trop (Mars)* 57:262-264, 1997.

rhodesisi

Californiensis

Thelazioidea

superfamily

17 7

11.5 - 7

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proboscis

: 6 - 2

Phortina variegata

:

(Weinmann, 1982) *benjamini*

Fannia thelaziae

) *Musca*

(*M. autumnalis*

M Larvipara

Convexfrons

Stomoxys calcitrans

Morellia

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20

:1985

4

1 : 9

:2000

1

1 (Hong *et al.*, 1995)

24

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(Lepus californicus) Jackrabbit

10 :1985 .
. 3 :2000

Bubaline

.(Weinmann, 1982)

:(Cheung *et al.*, 1998;. Doezie *et al.*, 1996)

.nictitating

()

Predilection

Bhaibulaya, M., S. Prasertsilpa, S. Vajrasthira. *Thelazia callipaeda* (Raillet and Henry, 1910), in man and dog in Thailand. *Am J Trop Med Hyg* 19(3):476–479, 1970.

Cheung, W.K., H.J. Lu, C.H. Liang, M.L. Peng, H.H. Lee. Conjunctivitis caused by *Thelazia callipaeda* infestation in a woman. *J Formos Med Assoc* 97(6):425–427, 1998.

Doezie, A.M., R.W. Lucius, W. Aldeen, D.V. Hale, D.R. Smith, N. Mamalis. *Thelazia californiensis* conjunctival infestation. *Ophthalmic Surg Lasers* 27(8):716–719, 1996.

Hong, S.T., Y.K. Park, S.K. Lee, *et al.* Two human cases of *Thelazia callipaeda* infection in Korea. *Korean J Parasitol* 33(2):139–144, 1995.

Smith, T.A., M.I. Knudsen. Eye worms of the genus *Thelazia* in man, with a selected bibliography. *Calif Vect News* 17:85–94, 1970.

Weinmann, C.J. Thelaziasis. In: Steele, J.H., section ed. Section C, Vol. 2: *CRC Handbook Series in Zoonoses*. Boca Raton: CRC Press: 1982.

TRICHINOSIS

ICD-10 B76 Trichinellosis

ICD-10 B76

.(Trichinelliasis Trichinosis) :

Trichinella :

.*T. spiralis*

1972 . . . 1 . . . 2 - 1
1835 Owen

1992

(Wu *et al.*, 1999)

phenotype .
:
T. nelsoni *T. native*
(Barriga, 1997) *T. britovi* *T. pseudospiralis*
:
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°15 20 - 10
40
°15 - 12

(Boar)

°17 - °12 - 6

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(Eurasia)

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Molt

larviposition

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pillars

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nurse

16

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.(Pozio *et al.*, 1998)

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%7.3 :1940 .%2.2 1970
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 1953 1939 : .%0.7 1970
 1973 – 1972 . %15 %4
 : . 3 :1975 . %4.2
 Fragoso *et al.*,) 1983 1978 108 17
 .(1984
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 1982 . 0.5 100.000 0.1 :1976
 %2.8
 .
 1982 : .1972 1967 – 1966
 18 1991 .
 36 1992 .(Venturiell *et al.*, 1993)
 .(Zamorano *et al.*, 1994)
 :
 500
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 . %90
 89 1975 .
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 .(Bellani *et al.*, 1978)

250

1993 .(Ancelle *et al.*, 1985)

.(Dupouy *et al.*, 1994) 554

- ()

. -

8 - 5 . necrophagous

.(Barriga, 1997)

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1962

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: . 58 975 :1973

1974 15 :1991 1974

.1981 60 1980 12

.(Yamaguchi, 1991)

1.000 1982 : . ()

: .(Haim *et al.*, 1997) 1995 44

54 :

.(Cui *et al.*, 1997) 1996 - 1995 291

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1959

(*potamochoerus porcus*)

(*Phacochoerus aethiopicus*)

(walrus)

%7.4 1964 ()

.1964 :

1994

:1995 – 1994 .(Andrews *et al.*, 1995)

.(Jongwtiwes *et al.*, 1998) 59

150

.pinnipeds ()

cetaceans

%11

:1950

%0.63

%0.5 1959 1954 %2.2
%1

156 4078

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%.6.4 %0.37

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.(Gamble *et al.*, 1999)

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: 1976 . %0.1

trichinoscopy 32

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.(Ruitenber*g et al.*, 1982)

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%0.33 %0.14

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(letonja *et al.*, 1974)

1955 36 %72 %4 %1.2

30 :

Oberg *et al.*,) %16.6 %6.6 30

150 %3.3 :

600

%60 %45 .

12 7 .

300 %25 50 %2

120 :

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%5.3)

8,037 %1.6 :

(1952 %36)

.(1268

.(1951 %25)

Paim and Cortes,)

. (1979

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%28.6 %8 .

1967 1951

Rattus norvegicus

1983 . %25 %10
 %30.7 %12.3 .
 . 60
Vulpes .
 . (*vulpes*
 (Badgers)
 (*Lynx*) (*Canis lupus*) (*Meles meles*)
 .(*Sus scrofa*) ()
 (*Thalarctos maritimus*)
 %45
 . ursids
 (walruses) (*odobenus rosmarus*)
 %9 %0.6
 6.4 %5 : .
) .Iowa
 .(Holliman *et al.*, 1980) (*sigmodon hispidus*
 : .selfsustainable
 Minchella *et*) coyote
 .(al., 1989
 :
 () .
 .() (*Felis serval*) () (serval)
 23 10 (*Crocota crocuta* *Hyaena hyaena*)
 . *C. crocuta*

) 301 2.063 :

(-) 1.762 (

20

Graomis (*Chaetophractus villosus*) (*pseudalopex gracilis*)

. (*griseoflavus*)

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43

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%15 .convalescence

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scarlatiniform

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.%6 %97 %95.9

10

.Massive

(1993)

%100 G %100

%50 %60 %90

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%40

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150

%88

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%62

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vascularites

.(Ferraccioli *et al.*, 1988)

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G

.(Pozio *et al.*, 1993)

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4

asthenia

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.(Jongwutiwes *et al.*, 1998)

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) necrophagous

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putrefaction

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decayed flesh

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(1999)

.(Gotsteien *et al.*, 1997; Yamaguchi 1991)

(1989)

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()

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.(Campbell, 1983)

Coprophagia

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(Schantz, 1983) 1981 1975

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.(Zimmermann and Zinter, 1971)

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.(*potamochoerus oorcus*)

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.
Margolis *et al.*,)

.(1979

%5 .

.(Schantz, 1981) 1981 - 1967

()

.(Ruitenber*g et al.*, 1983)

Wang and Luo,)

58

.(Yamaguchi, 1991)

87 (1981

:

food originated

.zoonosis

:

)

(

.(Ko, 1997)

immunoelctrotransfer

()

(Sandoval *et al.*, 1995)

(Homan *et al.*, 1992)

(1997)

.()

() versatile

.%93

%100

.
 %92) 58
 %100 G :(
 . %86 M
 A . 11
 . %62 - -
 .
 van Knapen) (%95
 3 .(et al., 1982
 : .
 .
 ()
 %100 .(Dzbenki et al., 1992)
 cappillariasis) .%96.8
 Mahannop et al.,) strongyloidiasis
 - .(1995
 . -
 :
 :

.(RAPD) Random amplified polymorphic DNA analysis

.

:1967

1961

3

10

:

100 – 50

25 – 20 pilaar

100 – 50

(1998)

116

(%15)

.(Gamble *et al.*, 1984)

%100

%88

%100

RAPD

.(Pozio *et al.*, 1999)

:

–

(°100)

vesicular exanthema

:

–

°57

()

°30

20

°15

15

6

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TRICHOSTRONGYLIASIS

ICD-10 B81.2

.(Trichostrongylosis trichostrongylidosis)

:

:

Trichostrongylus

:

T. orientalis

T. colubriformis

T. probolurus

T. vitrinus

T. brevis

T. capricola

T. calcaratus

T. affinis

.T. skrjabini

T. axei

Haemonchus contortus

Osteragia osteraggi

O. circumcincta

1

%7.5

275 %2.50 :

%1

19 : .()

52.552 .(Birrie *et al.*, 1994)

%0.1 :

46.000 5 :

. %85 – %69

:1993 .(Magambo *et al.*, 1996)

99

%0.3

.(lee *et al.*, 1994)

.(Boreham *et al.*, 1995)

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TRICHURIASIS OF ANIMAL ORIGIN

ICD- 10 B79 Trichuriasis

ICD-10 B79

.(Trichocephalosis, Trichocephaliasis) :

Trichuris Vulpis :

T. trichuris . *T. suis*

.Lemur

· " " :

"

() . "*Trichocephalus*

Trichocephalus

52

7.5 – 4.5

11 – 8

.(Whipworm)

90 – 72

· 40 – 32

203 – 2

50 – 30

· 25 – 21 – 56 – 50

.(Borriga, 1997)

()

.(Barriga, 1982)

:

14 – 10 (Crypts)

45 – 41

90 – 70

16

3 – 1

5 – 4

:

:

() *suun*

() *Toxascaris leonina*

.()

()

: . %40

%20 – %10

2.737 %28

:

.%52 %31 :

34) 40 (1982) .1956

: 8 2000 1980 (

(Kenney and Yermakov, 1980)

Mirdha *et al.*,) (Singh *et al.*, 1993)

.1.710 1980 3 .(1998

276 34 .

. 83 (1993)

. 0.6 %12.3 – %0.2 :

. ()

. %5 – %2

1940 – 1938 . %40 – %15

. (Borrigha, 1982) 84 – 11

:

.

:

.

()

5 – 2

– geohelminthiases

°22

°24 °24 °6

54

210

%16

%1 *Toxocara canis*

%20 – %10 .(Tost *et al.*, 1998)

Umeche,)

%4

%8

.(1989

:

:

(40 - 32 - 90 - 72)

()

Barriga, O.O. Trichuriasis. In: Steele, J.H., section ed. Section C, Vol. 2: *CRC Handbook Series in Zoonoses*. Boca Raton: CRC Press; 1982.

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Tost, F., A. Hellmann, G. Ockert. *Toxocara canis*-Infektion. Umweltparasitologische und epidemiologische Untersuchungen. *Ophthalmologie* 95(7):486-489, 1998.

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VISCERAL LARVA MIGRANS AND TOXOCARIASIS

ICD-10 B83.0

ICD-10 B83.0 Visceral larva migrans

	.Larval granulomatosis	:	
		:	
	()		
	<i>Gnathostoma</i>	<i>Gongynolema</i>	:
<i>Logochila-</i>	<i>Dirofilaria</i>	<i>Angiostrongylus</i>	<i>Baylisascaris</i>
			<i>.scaris</i>
	<i>Toxocara</i>		
	(<i>T. mystax</i>	) <i>cati</i>	<i>canis</i>
			.
	. 10 – 4	18 – 9	.
zygote	.		
			.
%90	°24	10	
		°19	15
	.(Arango 1972, Maung 1978)		

Lifespan

5 - 4

6

4

.(Schantz *et al.*, 1983)

5

Hypobiosis

3

.(Barriga, 1997) ..

.(Carrillo and Barriga, 1987)

()

10.000

(1978)

100

6 3

1.000

.(Barriga, 1998)

(42)

21

25

1/2 3/1

3

.(Barriga, 1991) 5

-

-

T. cati

:

Prenetal
(1998)

Transmammary

4

.()

:

(1988)

%40

%99.4

. 6

%5

%20

6

%6.7 ()

1.321 %3.6

358 %4.7

1.150

675

48

. 1981

780

1.900 (1979)

. 4

%56 :

Recur

()

(1995)

4

(%90 %35)

/ 160 14.5

.1.000 64

()

20

.macula ritinae

endophthalmias

enucleation

retinoblastomas

:

E

-

Obwaller *et*)

III I

.(*al.*, 1998

(Barra *et al.*, 1996)

irritability

:

233

15

.(Nathwani *et al.*, 1992)

:

()

:

kitten

3 - 2

:

(1994)

()

:

()

10.000

136

.(Barriga, 1988) 1.4

10 :

.(Overgaauw, 1997)

1986

%25 %2

144 %68 (1993) : .(Barriga, 1988)

Parks %87.5

.(Bratt and tikaingh, 1992) 7

669 5

.(Barriga, 1988) %99.3

geophagy

4

100

retinoblastoma

%92 %78

Schantz and Glickman,)

%95 %73

(1983)
 %28 inactive 10 %10 28 %68
 %25 . 7

(Gillespie *et al.*, 1993)

(Barriga, 1991)

ascarids

(Barriga, 1991) 8 6 4

%30 – %5

)

: (10 – 8

50

40 / 0.3 Fenbendazole /

(Barriga, 1997) 14

(Barriga, 1991) %50

.sandboxes

Araujo, P. Observações pertinentes as primeiras ecdises de larvas de *Ascaris lumbricoides*, *A. suum* e *Toxocara canis*. *Rev Inst Med Trop Sao Paulo* 14(2):83-90, 1972.

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ZOONOTIC ANCYLOSTOMIASIS

ICD-10 B76.0 Ancylostomiasis; B76.8 Other hookworm diseases

Ankylostomia- hookworm :
 .uncinariasis necatoriasis sis
 : :
 1982 .() *ceylanicum* () *Ancylostoma caninum*
 .
 1990 : .(Barriga, 1982)
 .
 1950 .
A.braziliense
)
 : . (1970

(Cypess, 1982)

malayanum

Netcor suillis

japonica

.(Barriga, 1982)

Rose *et al.*)

.(el-Naggar *et al.*, 1994)

:

.(Wilkinson *et al.*, 1990)

(1996

.(Salifu *et al.*, 1990)

100 %81

rhinoceri

1.3 (1997)

.(Barriga, 1982)

96

0.6 – 0.3

20 – 11

()

16.000

°30 – °23

%90

)

(

48 – 24

.(Barriga, 1997)

(Ashton *et al.*, 1999)

(Hotez *et al.*, 1994)

48 – 44

14

:

:

.(Barriga, 1982) 1982

1990 93 :

.(Prociv *et al.*, 1990)

6

.(Prociv and croese, 1996)

%99 80 %60 – %20

.(Malgor *et al.*, 1996) %49

1967 .

()

1982 – 1968 .

140 5 .

15 2 45 7

.(Barrgia, 1982) 183 16

29 .

. 23 2.6

:

54: 25: 1 16

%80 :

50 %60 102

%25 *tubaeforme* %41 1502

Baker *et al.*,) %1.4 %3.3

(1989)

:

() Xa

(Cappello *et al.*, 1995)

%5

(Prociv *et al.*, 1996)

150 – 50 8

20 – 15

5 – 3

:

(Wijers *et al.*, 1966)

:

Uncinaria stencephala

()

%10 -

-%15

.(Barriga, 1997)

:(
.(Croese *et al.*, 1994)

desiccarion

°12

- - :

%6.2

%2.6

5.000

Umeche *et*). (*al.*, 1989)

Albonico, M., L. Savioli. Hookworm infection and disease: Advances for control. *Ann Ist Super Sanita* 33(4):567-579, 1997.

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ZOONOTIC FILARIASIS

B74.8

ICD-10 B74.1

ICD-10 B74.1 Filariasis due to *Brugia malayi*; B74.8 Other filariasis

:	:
<i>B.pahangi</i>	(<i>Brugia malayi</i>)
)	<i>Dirofilaria immitis</i>
<i>Loaina</i>	(<i>tenuis</i>) (<i>Nochtiella</i>)
<i>repens</i>	(<i>onchecerca</i>)
	<i>Meningonema</i>
Beaver <i>et al.</i> , 1984,) <i>Bolivaremis</i>	<i>Semiclarum</i>
	(Orihel and Eberhard, 1998

(Subperiodic)

.(Nutman, 1991)

Microfilaria (1991)

%60 *Leporis*

21

8 :

(1989)

3

Dipetalonema

30

.(Barriga, 1982)

subgenus *Nochtiella*

.Cutialae

tenuis

repens

) *onchocerca*

6

(

gutturosa

Burr et)

Loaina .(al., 1998

(*Peruzzii*

)

Meningonema

.(Beaver, 1989)

Cercopithecus

.(Boussinesq et al., 1995)

() *bancrofti Wuchereria*
Loa loa *Vululus* *Timori*
) *Tetrapetalomema* *Mansonella Ozzardi*
 () *Perstans* (*T.streptocerca*
 .(Dissanaike, 1979)

.(Dissanaike, 1979)

() Mandrill
Papionia :
.Chrysops
 .(Dissanaike, 1979)

anthropoid
 .(WHO, 1979)

Viviparous
 / .
 Microfilariae
 . (Shell) Sheath

)

.(Subperiodic

10 - 5

:

) Pangolin

B .pahangi

.(*Manis javanica*) (

Armigeres subalbatus

22 :2000

B. beaveri

.(Eberhard *et al.*, 1991)

Makiya,) 4 .(12) 1997
 .(1997
Reconditum : 4
 .(Vakalis *et al.*, 1997) %37 %12 .*grassii*
 70 1997 :
 .(Dissanaike *et al.*, 1997) %60 %30

Onchoceriasis

() *Dipetalonema* .(Burr *et al.*, 1998)
 .(Beaver *et al.*, 1984) (: 4)
 :

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 .
 ()
 native .

Filaremia

Gutierrez and)
 Kozek *et al.*,) .(petras, 1982
 .(1984
 ()

: . () .

.thrombus ()
4 - 1

.(Echeverri *et al.*, 1995) coin .(Barriga, 1982)
(%56) 22 : 39
: (Flieder and Moran, 1999)
: .(Rodrigues *et al.*, 1995)

.

.

397 :1995

.(168)

/

.

.(Pampiglione *et al.*, 1995)

.

.(Marty, 1997)

.(Marty, 1997)

D. conjunctivae

Sarcoidosis ()

56 .(Kersten *et al.*, 1994) ()

.(Beaver, 1989)

3

(*Erethizon dorsatum*)

D. arbuta

.(*Costor Canadensis*)

S.sprenti

Burr *et al.*,)

.(1998

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-

.(Snowden *et al.*, 1989)

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: .(Barriga, 1997)

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72 - 24

.Scab

- :

Preshytis obscurus

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Macaca irus

Mansonia

.(Senham *et al.*, 1977)

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8 :

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evident

knott

6

%15

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.(Simon *et al.*, 1997)

:(Favia *et al.*, 1997)

Cancrini *et al.*,)

.(1999

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()

Asimacopoulos, P.J., A. Katras, B. Christie. Pulmonary dirofilariasis. The largest single-hospital experience. *Chest* 102(3):851-855, 1992.

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القسم الثالث

مفصلیات الأرجل (المفصلیات)

DERMATITIS CAUSED BY MITES OF ANIMAL ORIGIN

ICD-10 B88.0 Other ascariasis	ICD-10 B88.0
sarcoptic	mite
(	) mange
acarid	– (:) scabies
Dermanyssidae	Cheyletiellidae
	.Macronyssidae
	<i>Cheyletiella</i>
	ectoparasites
	:
<i>C. yasguri</i>	<i>C. parasitovorax</i>
	<i>C. blakei</i>
	palp . 0.3 × 0.4
(0.1 × 0.2)	. 35
hexapod	. 3 – 2
	nymphal
(gallery)
	10
	" walking dandruff "

:

1.0 – 0.8

D. gallinae

:

.

. (*Allodermanyssus*) *Liponyssoides sanguineus*

()

.

.

. 24 – 12

()

34

.

51

23 – 18

:

Ornithonyssus bacoti

:

.

O. bursa

.

O. sylviarum

Bdellonyssus

Liponyssus

:

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16 – 11

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()

. 8 23 :
(*Mus musculus*)

. ()
10

Rickettsia akari

: ()

scaly
crusted
exfoliative
tinea
spirochetosis
debility
Borrelia anserine
(Flynn, 1973)

10

(Hippoboscidae)

.(Engel *et al.*, 1998)

.(Blankenship, 1990)

impressions

(Miller, 1983)

- Blankenship, M.L. Mite dermatitis other than scabies. *Dermatol Clin* 8(2):265-275, 1990.
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MYIASES

ICD-10 B87 Myiasis

ICD-10 B87

. : .diptera
 . :
 () :
 invaders)
 : . (

Chrysomya bezziana Cochliomyia hominivorax
 Dermatobia Cordylobia anthropophaga
 Gasterophilus Cuterebra hominis
 Rhinoestrus purpureus Oestrus ovis Hypoderma
 Wohlfahrtia

.1
 1. Myiasis Caused by Larvae of *Cochliomyia hominivorax*

.Screwworm :
 (*Callitroga* :)
 bluish Calliphoridae

15 – 10

:1988

1991

Macellaria .(Barriga, 1997)

.(Taylor *et al.*, 1996)

(screwworm)

100 50

400 – 12

4.000

21 – 11

2

8 – 4

.pupae

4 – 3

3

50

Amarante *et al.*,)

12

.(1992

exudate

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(tegumentary)

prostration

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.ozena (

palatine vault

Chodosh and Clarridge,) .

.(1992

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navel .

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: (tegumentay)

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fertile

1954 pilot

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14 261

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179

.1974 1959

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1972

screw .

:1991 .

1988 .

Krafsur and)

.(Lindquist, 1996

: : panacea

200

. epizootic :

.(Reichard, 1999)

()

.2

2. Myiasis Caused by Larvae of *Chrysomya bezziana*

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.(Sutherst *et al.*, 1989)

)

.(Sampson *et al.*, 2001)

.phoresy (50)
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 . 10 - 7 . 20 - 15
) :

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 . 18 - 4
 77 - 28 .
 . 9 - 1 24
 : .(vestigial)

. socket

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C. emasculator

(chipmunk

.(Glass *et al.*, 1998)

8

54 (1989)

.2001

.6

6. Furuncular Myiasis Caused by Larvae of *Hypoderma* spp.

Hypoderma

:

.Oestridae

H. bovis

lineatum

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6 - 2

epidural

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11 - 10

3

12 - 11

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3 - 1

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35
(1956)

192

.(Soulsby, 1982)

13

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100

.(Doby and Deunff, 1982)

Endophthalmias

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(1990)

13

: .(Navajar *et al.*, 1998; Starr *et al.*, 2000)

.(Kalelioglu *et al.*, 1989)

(10)

()

.7

7. Myiasis Caused by the Larvae of *Oestrus ovis* and *Rhinoestrus purpureus*

12 – 10

Oestrus ovis

larviparous

Rhinoestrus purpureus

: 10 – 2

. 28 – 2

. 5 – 4

: E

.(Dorchies, 1997)

. :

.(Dar *et al.*, 1980)

112 %80 .

%54

(77) :

.() (32) (56)

.(Pampiglione *et al.*, 1997)

80

8 .(Dar *et al.*, 1980) 100.000 10

oestriasis .(Nacapunchai *et al.*, 1998)

. 10 – 3

.(otomyiasis)

Zayed,) ()

.(Rastegaev, 1980)

burros (1992

.8

8. Myiasis Caused by the Larvae of *Gasterophilus* spp.

Gasterophilus intestinalis

G. haemorrhoidalis

G. nasalis

G. pecorum

G. inermis

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G. nigricornis

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7 – 2

4 – 3

%1

10 – 8

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.(Soulabý, 1982)

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(Royce *et al.*, 1999) 1989 – 2001

affliction

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Phormia) Calliphoridae (*phaga*
) calliphorine . (*Paraphormia*
 ("fleece-fly strike" "blowfly"
 () merino
 calliphorine
Lucilia cuprina :
L. sericata
Protophormia *Phormia regina*
.terraenovae
 excoriated preputial
 rotten
 :2001 1989
Lucilia :

Phormia 14 :
 10
Parasarcophaga *L. cuprina*
 .(Lukin, 1989) *crassipalpis*
 87 :
 : .(Daniel *et al.*, 1994)
 ()
 Mateos *et al.*,) :
 .(1990
 5
 .
Sarcophaga
 77 :
 Merino *et al.*,) dementia 87
 9 .(2000
 86
 64 :
 :
Callitroga *Sarcophaga haemorrhoidalis*
 .(Husain *et al.*, 1993) *Musca domestica* *americana*
 :
 : .

8

:*Peregrina*

:

.(Abkari *et al.*, 1999)

15

:()

:

Parasarcophaga argyrostoma

:

Phormia regina

L. illustris

:

.(Fleischman *et al.*, 1999)

:

vicina

Eucalliphora latifrons

.(Vincent *et al.*, 2000)

Accidental Myiases

Fannia canicularis

Muscina stabulans

scalaris

(1983) : (cystomyiasis
()
Fannia
.latrines
-
: ("pseudomyiasis")
Fannia
: *canicularis*
:
obligate

()

Abkari, A., Z. Jouhadi, A. Hamdani, N. Mikou, N. Guessous, H.H. Khalifa. La myiase gastro-intestinale. À propos d'une observation marocaine. *Bull Soc Pathol Exot* 92(1):20-22, 1999.

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PENTASTOMIASES

ICD-10 88.8 B

ICD-10B88.8 Other specified infestations

.(porocephaliasis, porocephalosis)	:		
:		pentastomids	:
.Porocephalidae		. <i>Armillifer</i>	<i>Linguatula</i>
<i>Porocephalus</i>	:		
	)	<i>Leiperia</i>	()
.(		) <i>Raillietiella</i>	(

phylogenetic

(Self, 1982)

()

1991

8

.2001

1989

(Guardia *et al.*, 1991)

1. Infection due to *Linguatula serrata*

.1

(Linguatulosis, Liguatuliiasis)

2

10

Bovines

equines

12 300 – 250 .

5 nymph

.()

Lazo *et al.*,)

2001

1989

.(1999

%38

%43.3

.(Ehrenford and Newberne, 1981)

10 4 :

.()

10 2

8

.(Gardner *et al.*, 1984)

(*Sylvilagus floridanus*) 260 %2

()

:

:()

()

()

2. Infection due to *Armillifer* spp. .2

Armillifer armillatus :
 3) *moniliformis*
 :1996 .*A. grandis* (*agkistrodontis*)
crotali :) (rattlesnake)
agkistrodontis)
 %22.5 ()
 %8
 %1.4
 %45.4 :
 :2001 – 1989 : 8

. *agkistrodontis*

214

.(Nazeh *et al.*, 1996)

% 1.4

.(12 - 1)

18

.(Obafunwa *et al.*, 1989)

2 - 1

10

.(Mulder, 1989)

Self,) Viperidae

Boidae

.(1982

crotali

(1991)

Andrews, C.L., W.R. Davidson. Endoparasites of selected populations of cottontail rabbits (*Sylvilagus floridanus*) in the southeastern United States. *J Wildl Dis* 16(3):395-401, 1980.

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TICK INFESTATIONS

ICD-10 B88.8

ICD-10 B88.8 Other specified infestations

<i>Argas</i>	:		:
<i>Haem-</i>		<i>Dermacentor</i>	<i>Boophilus</i> <i>Amblyomma</i>
<i>Ornithodoros</i>		<i>Ixodes</i>	<i>Hyalomma</i> <i>aphysalis</i>
			<i>.Rhipicephalus</i>

.(4)

:Argasidae :

:Ixodidae

engorge

Borrelia

recurrentis

.

.

:4

triguttatum

excavatum

impeltatum

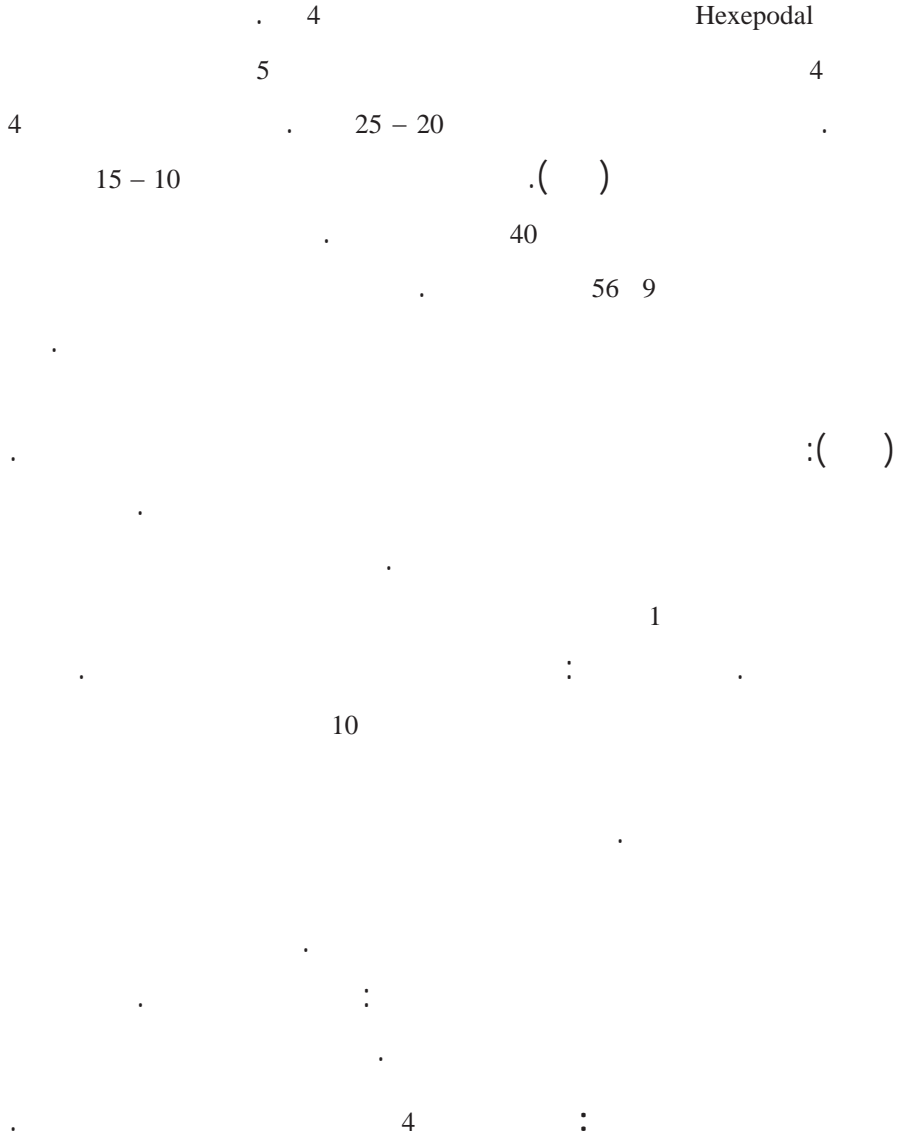
cookie

ovatus

" "

()

Phagocytophile



%17 . %1
 %24 %22 %26
 1.000 5 : .()
 .(Manfredi *et al.*, 1999)
 Felz and) 1.3 521
 1.384 %2.2 : .(Durden, 1999
 1995 1955
 :
 .
 (Barriga, 1999)
 .
 100 *testudinarinm*
 (Nakamura-Uchiyama *et al.*, 2000)
 : . pustule
megnini
 () otocariasis
 .(Indudharan *et al.*, 1999)
 : .
 (Veraldi *et al.*,1998) () *A. reflexus*
 (Basset-StHEME *et al.*, 1999)
 (Lavaud *et al.*, 1999)

.(Moneret-Vautrin *et al.*, 1998) *ricinus*

: 20

holocyclus

.(Barriga, 1997)

persicus

. :

(1997)

:

Dworkin *et al.* 1996 1946

() 33

.(*al.*, 1999

.
(1995)

(1998)

.2000

4

:

.
:
.

." Worry "

70

theileriosis () babesiosis
 anaplas- (hydropericadium) () cowdriosis
 .(Uilenberg, 1997) mosis

()

1

:

:

%70
 acaricides

(Samish and Rehacek, 1999)

microplus

: fertility %75

Jongejan)

sensors

(1999

.(Thomson and Connor, 2000) pests

()

boot

.permethrin

.(Mafong and Kaplan, 1997)

Barriga, O.O. Evidence and mechanisms of immunosuppression in tick infestations. *Genet Anal* 15:139-142, 1999.

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TUNGIASIS

() ICD-10 B88.1

ICD-10 B88.1 Tungiasis (sandflea infestation)

jigger flea () Chigoe :

.dermatophiliasis sand flea burrowing flea

(*Sarcopsylla*) *Tunga* :

ovigerous . *penetrans*

pronotal .()

genal combs

5) ()

epidermis .(

excrecence

4 - 3

14 - 10 pupae 14 - 10

200 .

:

(oviposition)

native

:

.1732

1526

1872

.(Connor, 1976)

:

.(Lowry *et al.*, 1996)

44 (%25) 11

(Nte and Eke, 1995)

280

(%22.5) 49

(Obengui, 1989)

(Chadee, 1994)

102

(%31.4) 32

:

(Chadee, 1998)

1.307

(%20.4) 267

1989

:

:2001

6

2

4

5 ()

:

.(Sanusi *et al.*, 1989) (

14

)

16 (1995)

11 : .(Chadee, 1998)

.(Obengui, 1989) 44

49 :

.(Nte and Eke, 1995)

102

6-5 9 55 14 10 9 - 5

.(Chafee, 1994) 12

:

Cooper)

agalactia .(1967

Verhulst,)

.(1976

:

:

:

) pesticides :

(...

chitin

70

Ade-Serrano, M.A., G.C. Ejezie. The prevalence of tungiasis in Oto-Ijanikin village, Badagry, Lagos State, Nigeria. *Ann Trop Med Parasitol* 75(4):471-472, 1981.

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ZOONOTIC SCABIES

ICD-10 B86 Scabies		ICD-10 B86	
sarcoptic acariasis		mange	:
.scabiosis	seven year itch	sarcoptic itch	
<i>Sarcoptes scabiei</i>			:
350 x	450	mite	var. <i>hominis</i>
	.	200 x	240
			40
	.(Elgart, 1990)	-	
			:
			.
			.
		(1995)	:
	(Arlan <i>et al.</i> , 1996)		.
			(Walton <i>et al.</i> , 1999)
			.
	Sarcoptidae		<i>Notoedres cati</i>
:	)	<i>Cheyletiella</i>	.
<i>Otodectes cynotis</i>	:	.(
	.(Park <i>et al.</i> , 1996)		(Psoroptidae)

furrows

3 - 2

scales

protonymph

tritonymphs

(5 - 0.5) tunnel

14 - 10

17

S. ovis

S. equi

30

cheyletiellosis notoedric
 .(Beck, 1996; Mitra *et al.*, 1993; Parish and Schwartzmann, 1993)
 wombat (1999)
 .()

19 42
 Mitra *et al.*,)
 48 .(1993
 (%65) 30
 (Chakrabarti, 1990) (%67) 20

.(Fontaine, 2000) contagion
 :
 312 %25 (1996)
 (1996)

:
 :
 2

furrows

(1997)

2 - 1

.I

Kummel)

.(Schwartzmann, 1983

Excoriations

22

35

.(Smith and Claypole, 1967)

bubalis

30

.(Chakrabarti *et al.*, 1981)

.(Chakabarti, 1990)

()

:

:

()

3

()

(Davis and Moon, 1990) (delicate)

scabby

.creases

)

(
Notoedres

contagion

fomites

()

bubalids

.
%1
34 28 65
20 .
Smith and Claypole)
%33 .(1967
(Schwartzmann, 1983)
27 143
(%40.6) 58 scabiosis :
%25 .(Larsson, 1978)
.
()
52 (%67.3) 35
(%42.3) 22
()
(Charkabarti *et al.*, 1981)
.
:
.

%15 – 10 .

5

: . furrows

epifluorescent

.(Argenziano *et al.*, 1997)

acaricide

(...)

Argenziano, G., G. Fabbrocini, M. Delfino. Epiluminescence microscopy. A new approach to *in vivo* detection of *Sarcoptes scabiei*. *Arch Dermatol* 133(6):751–753, 1997.

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ZOONOSES AND COMMUNICABLE DISEASES COMMON TO MAN AND ANIMALS

Third edition

إن هذه الطبعة الثالثة من كتاب " الأمراض الحيوانية المصدر والأمراض السارية المشتركة بين الإنسان و الحيوانات " تتكون من ثلاثة أجزاء
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الجزء الثاني: الأمراض الناجمة عن المتدثرات والريكتسيات، والفيروسات
الجزء الثالث: الأمراض الطفيلية
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